BUILDING CODE

of the

CITY OF HOBOKEN

NEW JERSEY

1913

HUDSON OBSERVER JOB PRINT

BUILDING CODE

——OF THE——

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NEW JERSEY

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AN ORDINANCE to regulate the erection of buildings, to provide for the appointment of an Inspector of Buildings and an Assistant Inspector of Buildings, and to define their powers and duties, and to provide for and establish a general Building Code.

SECTION 1.

This Ordinance is to be Known and Cited as the Building Code. The following provisions shall constitute and be known as The Building Code, and may be cited as such and presumptively provide for all matters concerning, affecting or relating to the construction, equipment, alteration, repair or removal of buildings o structures erected or to be erected in the City of Hoboken, Hudson County, New Jersey.

SECTION 2.—BUILDING CODE A REMEDIAL ORDINANCE.

This ordinance is hereby declared to be remedial and is intended to secure the beneficial interests and purposes thereof.

SECTION 3.—PRELIMINARY REQUIREMENTS.

No wall, structure, building or any part thereof shall hereafter be built or constructed nor shall the elevator work of any building premises or structure be installed, constructed or altered in the City of Hoboken except in conformity with the provisions of this Code. No building already erected or hereafter to be built in said City shall be raised, altered, built upon or moved in any manner, nor shall any elevator work be installed that would be in violation to any of the provisions of this Code or the permits issued thereunder.

SECTION 4.—PERMITS.

Before commencing or proceeding with the erection, construction, enlargement, alteration, repair or emoval of any building, structure, elevator work, or any part thereof, in the City of Hoboken a pemit therefor shall first be obtained by the owner or his agent or the architect from the Inspector of Buildings, and it shall be unlawful to commence or proceed with any such work unless such permit shall first have been obtained.

SECTION 5.—PERMITS LIMITED.

If after a permit shall have been issued the operation called for by it shall not be begun within six (6) months of the date thereof, said permit shall be void; and before such operation can be begun a new permit shall be taken out by the owner or his agent or architect.

SECTION 6.—APPLICATION FOR PERMIT.

Application for such permit shall be made in writing to the Inspector of Buildings by the owner or his agent or architect upon blank forms furnished by the Inspector of Buildings. Such application shall be accompanied by a complete set of plans and specifitiois clearly showing the work to be performed; and the name of the owner and architect of such plans and drawings shall be indelibly inscribed thereon.

SECTION 7.—STATEMENTS.

The application shall be accompanied by a statement in writing sworn to before a notary public or other person authorized to administer an oath, giving the estimated cost of such building or sructure, the location and intended use thereof with a pertinent description of the land and number of lot, name of owner and street, and of each of the owners of said building, structure r premises. The aforesaid application and detailed statement shall be kept on file in the office of the Inspector of Buildings, with the plans and specifications.

In case the applicant for a permit shall fail to give the correct estimated cost of the work for which a permit is required, it shall be the duty of the Inspector to take off the quantities, make the estimates and add to the cost of such work as found to the best of his knowledge and belief.

SECTION 8.—DRAWING AND OTHER DATA.

The Inspector shall, when he deems it necessary, call for all other data, calculations and strain sheets to be submitted for all framed work. He shall require all other drawings, details and specifications, samples of materials, and results to be submitted, or tests made as prescribed in other sections of this Code.

SECTION 9.—PERMIT TO INCREASE THE HEIGHT OF BUILDING.

No permit to increase the height of any building shall be issued unless the owner of said building shall furnish the Inspector of Buildings satisfactory proof of the adequate thickness of the walls or strength of the skeleton frame thereof.

When application shall be made for a permit to move, raise, enlarge or build upon any building, the Inspector of Buildings shall examine such building and make a record of its condition.

SECTION 10.—PERMIT TO ERECT PART OF BUILDING.

Nothing in this Title shall be construed to prevent the Inspector of Buildings from issuing a permit for the erection of any part of a building or structure, where plans and detailed statements have been presented for the same before the entire plans and detailed statements of said building or structure have been submitted, provided that a complete set of all such plans and specifications as prescribed in this Code shall be placed on file before the foundation wall is brought to grade, or to height to receive the first tier of beams, girders or joists.

SECTION 11.—PERMITS FOR SUPERSTRUCTURE.

No permit shall be issued for the erection of the superstructure of any building above the foundation or basement wall until all copies of approval plans and specifications and details required by this Code are placed on file in the office of the Inspector of Buildings.

SECTION 12.—IMPERFECT PLANS AND SPECIFICATIONS.

If the matter mentioned in any application for a permit or in the plans and specifications accompanying and illustrating the same indicate to the Inspector of Buildings that the work to be done is not clearly or specifically defined, or is imperfect, or is not

in all respects in accordance with the provisions of this Code, he shall refuse to issue a permit until such application and plans and specifications shall have been made to conform in every respect with the requirements thereof. All unfigured plans shall be deemed incomplete.

SECTION 13.—PERMIT, WHEN TO ISSUE.

When such applications, plans and specifications conform to the requirements of this Code, the Inspector of Buildings shall issue a permit and shall file such applications and apply to such plans and specifications an official stamp stating that the drawings and specifications have been examined by him and do comply with these regulations.

SECTION 14.—APPLICATIONS PASSED ON IN ORDER.

All applications, plans and specifications shall be dated by the Inspector of Buildings and taken up in their regular order as received, and no plans or specifications shall be passed out of their order unless buildings or structures are of a complex character which require prolonged examination and inspection.

It shall be the duty of the Inspector of Buildings to approve or reject any plan filed with him pursuant to the provisions of this section within fifteen (15) days.

SECTION 15.—PERMIT FOR STABLES OR BAKERIES.

No permit shall be given for the construction of stables, bakeries or bake shops within that portion of the City of Hoboken from the westerly line of Clinton street to the easerly boundary line of the City and from the northerly side of Fourteenth street to the southerly boundary line of the City; excepting lots facing on Court street, upon which stables may be constructed.

SECTION 16.—SPECIAL PERMITS.

The Inspector of Buildings shall not issue any certificate or permits for any occupancy of or construction on public property requiring the appoval of the Council of the City of Hoboken, or for any structure to be used in connection with a business requiring a special license or approval of the Fire Department or Board of Health, until the applicant shall present the certificate of such Boards, or Department, that all legal requirements necessary to procure such license or occupancy have been complied with.

SECTION 17.—DEPOSIT FOR REPAIRS.

No permit shall be granted to erect or repair any building, sidewalk, vault, sidewalk elevator, lift, chute or coal hole, or for making any opening in any street or public property in connection with any building operations by which the pavement or curb in any adjoining street or thoroughfare is liable to be taken up or endangered by caving or settling, or from any other cause, until the owner has filed with the Inspector of Buildings the written certification of the Street Commissioner that a deposit has been made or an indemnity bond given for the replacement of such pavement or curb.

SECTION 18.—CHARGES FOR PERMITS.

Charges for permits shall be as follows: For ordinary repairs not exceeding in cost Fifty ($50) Dollars, no charge. For alterations and repairs over Fifty ($50) Dollars and not exceeding in cost Five Hundred ($500) Dollars. One ($1) Dollar. And One ($1.00) Dollar additional for each additional sum of Five Hundred ($500.00) Dollars, or any part thereof.

For each new building, cost not more than One Thousand ($1,000) Dollars, One ($1.00), and for each additional One Thousand Dollars of cost, the additional sum of One Dollar. For moving any building, for each block or part of a block, Five Dollars ($5.00).

SECTION 19.—REVOCATION OF PERMITS.

When the work for which any building permit was issued is not being performed in conformity to the detailed statement, plans or specifications upon which such permit was issued, it shall be the duty of the Inspector of Buildings to notify the owner or owners, or his or their agent, in writing, that the work is being constructed in violation of the permit, and that such work must be suspended until a permit for such deviation from the detailed statement, plans or specifications shall be obtained, or that such work shall be made to conform to the detailed statement,plans and specifications upon which a permit therefor was issued. If the owner or owners, or his or their agent, fail to comply with the said notice on the service thereof, it shall be the further duty of the said Inspector to revoke said permit. Written notice of such revocation, signed by the Inspector, shall be immediately served upon the owner, agent, superintendent or contractor in charge of the work, and shall be posted on such premises and it shall be unlawful for any person to perform any work in or about said structure, building or premises after the revocation of the permit and the posting of the notice.

SECTION 20—DEMOLISHING BUILDINGS.

When plans and detailed statements are filed with the Inspector of Buildings for the erection of a new building, if an existing building or part of an existing building is to be demolished, such fact shall be stated in the statement so filed.

In demolishing any building, story after story, commencing with the top story, shall be completely removed. No material shall be placed upon the floor of any such building in the course of demolition, but the brick, timber and other structural parts of each story shall be lowered to the ground immediately upon the displacement.

The material to be removed shall be properly wet down to lay the dust incident to its removal.

The owner, architect, builder, or contractor for any buildings, structures, premises, wall, platform, staging or flooring to be demolished shall give not less than twenty-four hours' notice to the Inspector of Buildings of such intended demolition.

Upon main thoroughfares, when directed by the Inspector of Buildings, the contractor shall erect a shed over the entire sidewalk for the protection of the public, and shall leave the sidewalk clear and in good condition.

SECTION 21.—DEFINITIONS—MEASUREMENT OF HEIGHT FOR BUILDINGS AND WALLS.

The height of buildings shall be measured from curb level at the center of the front of the building to the top of the highest point of the roof beams in the case of flat roofs;

And for high-pitched roofs the average of the height of the gable shall be taken as the highest point of the building.

In the case of flat roofs the measurement for height shall not preclude placing the roof beams level at the ceiling line and blocking up above the beams to get a proper pitch for water on the roofing.

In case a wall is carried on iron or steel girders or iron or steel girdes and columns, or piers of masonry, the measurements, as to height for the wall, may be taken fom the top of such girder.

When the walls of a structure do not adjoin the street, then the average level for the ground adjoining the walls may be taken instead of the street curb level for the height of such structure.

SECTION 22. — MEASUREMENT FOR WIDTH AND DEPTH OF BUILDINGS.

For the purposes of this Code—

The greatest horizontal dimension of any building shall be considered its length.

And the next greatest horizontal dimensions its width.

SECTION 23. — CLASSIFICATION OF BUILDINGS ACCORDING TO CONSTRUCTION.

For the purpose of this code, buildings will be classified in accordance with their construction as follows:

I Class.—ABSOLUTELY FIREPROOF BUILDING.

When built entirely of incombustible fire and water proof material with all metal structural parts thoroughly fireproofed, and finished and trimmed with incombustible material.

II CLASS. — FIREPROOF BUILDINGS, SHORT FLOOR SPANS.

When similar in construction to buildings of the I Class except that the finished floors, frames, doors, windows and the usual trim of rooms are of ordinary wood construction with no open air spaces behind wood.

III CLASS. — FIREPROOF BUILDINGS — LONG FLOOR SPANS.

With wall or metal structural frames similar to those of the II Class, but the floor fire-proofing is made in long flat spans and panels of reinforced or armored concrete, and having incombustible partitions. Also buildings constructed with trussed or reinforced concrete frames.

IV CLASS.—SEMI-FIREPROOF OR COMPOSITE BUILDINGS.

When the enclosing walls and roof covering are made of incombustible materials with doors, windows and frames of wood, but with interior walls of brick; or, with columns and girders made of fireproofed iron or steel and with the floor construction of wooden beams, joists and ceiling furred with fireproof material and all concealed spaces fire stopped and all sub-divisions made with incombustible partitions, or if the interior is of mill construction as in Class V, wood columns containing one hundred (100) square inches or more need not be fireproofed. In buldings of this class a single thickness of metal lath or furring and hard incombustible plaster will be deemed sufficient protection.

V CLASS.—MILL CONSTRUCTED BUILDINGS.

When the enclosing walls and roof covering are made of incombustible materials, with doors, windows and frames of wood, but with interior walls of brick or columns and girders and the floor and roof systems composed of heavy timbers and planked with no concealed air spaces between.

VI CLASS.—ORDINARY BUILDINGS.

When the enclosing walls and roof coverings are similar to those of buildings of the IV and V Classes, but the interior timber and iron structural parts are not protected with fire resisting covering.

VII CLASS.—FRAME BUILDINGS.

When the enclosing and interior partition walls are constructed entirely of wood.

Wooden frames covered with a veneer will be classed as a building of the VII Class.

SECTION 24.—EXPLANATION OF TERMS.

The terms "Fireproof," "Concrete," "Mill," "Timber" or "Frame" construction when used mean that the whole or any part of a building or structure referred to shall be constructed in accordance with the conditions prescribed for the respective classes of buildings as set forth in the previous sections.

SECTION 25. — PRIVATE DWELLING, DEFINITION OF.

A private dwelling shall be taken to mean and include every building which shall be intended or designed for, or used as the home or residence or not more than two separate and distinct families or households, and in which not more than fiftee nrooms shall be used for the accommodation of boarders, and no part of which structure is used as a store or for any business purpose.

Two or more such dwellings may be connected on each story when used for boarding purposes, provided the halls and stairs of each house shall be left unaltered.

Any such building hereafter erected shall not cover more than ninety per cent. of the lot area.

SECTION 26.—LODGING HOUSE, DEFINITION OF.

A lodging house shall be taken to mean and include any house or building or portion thereof in which persons are harbored or lodged for hire for a single night or for less than a week at any one time, or any part of which is let for any person to sleep in for any term less than a week.

Any such building hereafter erected shall not cover any greater percentage of a lot than is lawful for a hotel, as specified in Section 27 of this Code.

SECTION 27.—HOTEL, DEFINITION OF.

A hotel shall be taken to mean and include every building, or part thereof, intended, designed or used for supplying food and shelter to residents or guests, and having a general public dining room or a cafe, or both, and containing also more than fifteen sleeping rooms above the first story.

An apartment hotel shall be taken to mean and include every hotel in which the apartments are rented or are intended or designed to be rented in suites, and for terms not less than one month, and in which there are no kitchens, dining rooms or sewing rooms within the apartments, but where a common dining rooms is provided for the use of the tenants.

Whenever any such hotel or apartment hotel building hereafter erected shall be located on any other than a corner lot or plot, it shall not cover in the aggregate more than ninety per cent. of the area of such lot or plot at and above the second story floor level, if not more than four stories in height, and one-half per cent. less for every story in height, commencing at and above the second story floor level. In case any such building is to occupy a number of lots, the Inspector of Buildings may allow the free air space proportioned as herein stated to be distributed in such manner as, in his opinion, will equally as well secure light and ventilation.

SECTION 28. — AUTOMOBILE GARAGES AND SHELTERS.

(a) PRIVATE GARAGES AND SHELTERS.—For the purpose of this Code all automobile garages or shelters devoted exclusively to the private uses of any owner or his family, and not in conflict with any other city ordinances or further provisions of this code, may house or shelter not more than two (2) automobiles containing live tanks of gasoline or other inflammable fluid, if the garage or shelter is of seventh class construction.

And not more than six (6) automobiles in any building of sixth class construction.

And all buildings sheltering more than six but not more than ten (10) such automobiles shall be of at least fifth class construction.

If such parage is more than one (1) story high, the portion used for the shelter of such automobiles shall not be less than eleven (11) feet high in the clear, well ventilated, and shall be separated from all other portions or rooms by brick walls not less than eight inches thick, with all openings therein provided with fire doors or shutters.

(b) PUBLIC GARAGES.—All garages or buildings accommodating more than ten (10) automobiles with live tanks of gasoline or other inflammable fluid, used either for private or public livery or temporary shelter purposes, shall be deemed public garages, subject to the following regulations:

(c) CONSTRUCTION.—No building hereafter erected shall be used as a public garage nor shall any existing building be converted to such use unless the same is of at least V Class construction if the number of automobiles sheltered does not exceed one hundred (100), and of at least IV Class construction if such number exceeds one hundred (100). The portion of such building sheltering the automobiles or containing the feed room shall not be less than fourteen (14) feet high in the clear, and, when located within the fire limits, the floor and ceilings of the story so sheltering over one hundred (100) such automobiles shall be of I, II or III Class fireproof construction.

(d) FIRE WALLS IN.—If a public garage is more than (1) story high, the portion housing or sheltering such automobiles shall be well ventilated and be separated from all feed, work, repair or storage rooms and stair and elevator enclosures by brick fire walls not less than twelve inches (12") thick; fire doors and shutters shall be provided for all inside and outside wall openings in such buildings.

(e) LOCATION OF.—The location of all public garages shall be regluated as prescribed in following section: No room sheltering any gasoline automobile as herein prescribed, in any private or public garage shall be located above or below the floor nearest the grade, provided that such floor is not more than five (5) feet below such grade and has no cellar underneath. When there is a cellar underneath such floor it shall extend not less than three (3) feet above the grade; such floor shall be constructed watertight and fireproof throughout.

SECTION 29.—GRIST AND SAWMILLS AND BLACKSMITH SHOPS.

No building to be used as a saw or grist mill, blacksmith shop, or shop for the working of wood or other combustible materials or rag warehouse, or shop or building for the storage of materials, or an inflammable nature shall be erected, nor shall any building be converted to such uses within twenty-five (25) feet of any building of the First Grade, or "Hotel," "Tenement," or "Dwelling," or "Office," except the dwelling owned by the owner of the building to be erected for or converted to the uses aforesaid.

AMENDED SEE PAGE No. 48

SECTION 30.—OFFICE BUILDING, DEFINITION OF.

An office building shall be taken to mean and include every building whic hshall be divided into rooms above the first story, and be intended and used for office purposes, and no part of which shall be used for living purposes, excepting only for the janitor and his family.

OCCUPATION OF AREA OF INSIDE LOT LIMITED.

Office buildings when not erected on a corner shall not cover more than ninety per cent. of the lot area at and above the second-story level.

SECTION 31.—FRAME BUILDING, DEFINITION OF.

A frame building shall be taken to mean a building or structure of which the exterior walls or a portion thereof shall be constructed of wood.

Buildings sheathed with boards, and partially or entirely covered with four inches of brick or stone work shall be deemed to be frame buildings.

Wood frames covered with metal, whether the frames are sheathed or not with boards, shall be deemed to be frame structures.

SECTION 32.—QUALITY OF MATERIALS.

BRICK.

The brick used in all buildings shall be good, hard, well-burnt brick.

When old brick are used in any wall they shall be thoroughly cleaned before being used, and shall be whole and good, hard, well-burnt brick.

SAND.

The sand used for mortar in all buildings shall be clean, sharp grit sand, free from loam or dirt.

And shall not be finer than the standard sample kept in the office of the Inspector of Buildings.

SECTION 33.—LIME MORTAR.

Slaked lime mortar shall be made of one part of lime paste and not more than four parts of sand.

All lime used for mortar shall be thoroughly burnt, of good quality, and properly slaked before it is mixed with the sand.

CEMENT MORTAR.

Cement mortar shall be made of cement and sand in the proportion of one part of cement and not more than three parts of sand, and shall be used immediately after being mived.

The cement and sand are to be measured and thoroughly mixed before adding water.

Cements must be very finely ground and free from lumps.

CEMENT AND LIME MORTAR.

Cement and lime mortar mixed shall be made of one part of slaked lime paste, one part of cement and not more than three parts of sand to each, the quality of the respective parts to accord with the requirements before stated in this section.

SECTION 34.—CEMENTS.

Portland cement shall be held to mean such cement as shall consist of a mixture of argillaceous and calcareous materials, calcined together and subsequently ground to an impalpable powder, and thereafter to receive no addition of other substances exccept a maximum of two per cent. of gypsum or lime for the purpose of regulating the setting, and when tested neat, after one day set in the air, be capable of sustaining without rupture a tensile strain of at least one hundred and twenty pounds per square inch, and after one day in air and six days in water shall be capable of sustaining without rupture a tensile strain of at least three hundred pounds per square inch.

Cements other than Portland cement shall be considered to mean such cement as will, when tested neat, after one day set in air, be capable of sustaining without rupture a tensile strain of at least sixty pounds per square inch, and after one day in air and six days in water be capable of sustaining without rupture a tensile strain of at least one hundred and twenty pounds per square inch.

TESTS OF CEMENTS.

Said tests are to be made under the supervision of the Inspector of Buildings, at such times as he may determine, and a record of all cements answering the above requirements shall be kept for public information.

SECTION 35.—CONCRETE.

Concrete for foundations shall be made of at least one part of cement, three parts of sand and five parts of clean, broken stone, of such size as to pass in any way through a two-inch ring, or good clean gravel may be used in the same proportion as broken stone.

The cement, sand and stone or gravel shall be measured and mixed as is prescribed for mortar.

All concrete shall be properly rammed into place and allowed to set without being disturbed.

SECTION 36.—QUALITY OF TIMBER.

All timbers and wood beams used in any building shall be of good sound material, free from rot, large and loose knots, shakes or any imperfection whereby the strength may be impaired. And to be of such size and dimensions as the purpose for which the building is intended requires.

SECTION 37.—TESTS OF NEW MATERIALS.

New structural material of whatever nature shall be subjected to such tests to determine its character and quality as the Inspector of Buildings shall direct.

The tests shall be made under the supervision of the Inspector of Buildings, or he may direct the architect or owner to file with him a certified copy of the results of tests such as he may direct shall be made.

SECTION 38.—STRUCTURAL MATERIAL.

WROUGHT IRON.—All wrough iron shall be uniform in character, fibrous, tough and ductile. It shall have an ultimate tensile resistance of not less than 48,000 pounds per square inch, an elastic limit of not less than 24,000 pounds per square inch, and an elongation of twenty per cent. in eight inches when tested in small specimens.

STEEL.—All structural steel shall have an ultimate tensile strength of from 54,000 to 64,000 pounds per square inch. Its elastic limit shall be not less than 32,000 pounds per square inch, and test specimens, ruptured in tension, must show a maximum elongation of not less than twenty per cent. in eight inches. Rivet steel shall have an ultimate strength of from 50,000 to 58,000 pounds per square inch.

CAST STEEL.—Shall be made of open hearth steel containing one-quarter to one-half per cent. of carbon, not over eight one-hundredths of one per cent. of phosphorus, and shall be practically free from blowholes.

CAST IRON.—Shall be good foundry mixture, producing a clean, tough, gray iron. Sample bars five feet long, one inch square, cast in sand molds, placed on supports four feet six inches apart, shall bear a central load of 450 pounds before breaking. Castings shall be free of serious blowholes, cinder spots and cold shuts. Ultimate tensile strength shall be not less than 16,000 pounds per square inch when tested in small specimens.

SECTION 39.—EXCAVATIONS AND FOUNDATIONS.—EXCAVATIONS.

All excavations for buildings shall be properly guarded and protected so as to prevent the same from becoming dangerous to life or limb.

And shall be sheath-piled by the person or persons causing the excavations to be made when necessary to prevent the adjoining earth from cavnig in.

Plans filed with the Inspector of Buildings shall be accompanied by a statement of the character of the soil at the level of the footings.

Whenever an excavation of either earth or rock for building or other purposes shall be intended to be, or shall be, carried to the depth of more than eight feet below the curb, the person or persons causing such excavation to be made shall at all times, from the commencement until the completion thereof, if afforded the necessary license to enter upon the adjoining land and not otherwise, at his or their own expense, preserve any adjoining or contiguous wall or walls, structure or structures from injury, and support the same by proper foundations, so that the said wall or walls, structure or structures, shall be and remain practically as safe as before said excavation was commenced, whether the said adjoining or contiguous wall or walls, structure or structures are down more or less than eight feet below the curb.

If the necessary license is not accorded to the person or persons making such excavation then it shall be the duty of the owner or owners refusing to grant such license to make the adjoining or contiguous wall or walls, structure or structures, safe, and support the same by proper foundations so that adjoining excavations may be made, and shall be permitted to enter upon the premises for that purpose, when necessary, where such excavation is being made.

If such excavation shall not be intended to be, or shall not be carried to a depth of more than eight feet below the curb, the owner or owners of such adjoining or contiguous wall or walls, structure or structures, shall preserve the same from injury, and so support the same by proper foundations that it or they shall be and remain practically as safe as before such excavation was commenced, and shall be permitted to enter upon the premises for that purpose, when necessary, where such excavation is being made.

ADJOINING WALLS.

In case an adjoining party wall is intended to be used by the person or persons causing the excavation to be made, and such party wall is in good condition and sufficient for the usese of the adjoining building, then and in such case the person or persons causing the excavations to be made shall, at his or their own expense, preserve such party wall from injury and support the same by proper foundations so that said party wall shall be and remain practically as safe as before the excavation was commenced.

If the person or persons whose duty it shall be to preserve or protect any wall or walls, structure or structures, from injury, shall neglect o fail so to do after having had a notice of twenty-four hours from the Inspector of Buildings, then the Inspector of Buildings may enter upon the premises and employ such labor, and furnish such materials, and take such steps as in his judgment may be necessary, at the expense of the person or persons whose duty it is to keep the same safe and secure, to make the same safe and secure or to prevent the same from becoming unsafe or dangerous.

RETAINING WALLS.

When an excavation is made on any lot the person or persons causing such excavation to be made shall build on the adjoining lot, at his or their own cost or expense, a retaining wall to support the adjoining earth, if accorded the necessary license to enter upon the said ajoining lot, and not otherwise; and such retaining wall shall be carried to the height of the adjoining earth and be properly protected by coping. If the necessary license is not accorded to the person or persons making such excavation, then it shall be the duty of the owner or owners refusing to grant such license to build the retaining wall on his or their own property at his or their own expense without recourse to the person or persons making the excavation on the premises adjoining thereto.

The average thickness of retaining walls shall be not less than one-third of the height unless the wall is buttressed or reinforced by cross-walls or when they are made of reinforced concrete. In such cases the proportion may be reduced as determined by the Inspector of Buildings.

SECTION 40.—BEARING CAPACITY OF SOIL.

When no test of the sustaining power of the soil is made, different soils, excluding mud, at the bottom of the footings, shall be deemed to safely sustain the following loads to the superficial foot, namely:

Soft clay, one ton per square foot;

Ordinary clay and sand together, in layers wet and springy, two tons per square foot;

Loam, clay or fine sand, firm and dry, three tons per square foot;

Very firm, coarse sand, stiff gravel or hard clay, four tons per square foot, or as otherwise determined by the Inspector of Buildings.

Where a test is made of the sustaining power of the soil the Inspector of Buildings shall be notified so that he may be present, either in person or by representative. The record of the test shall be filed with the Inspector of Buildings.

When a doubt arises as to the safe sustaining power of the earth upon which abuilding is to be erected the Inspector of Buildings may order borings to be made, or direct to be tested the sustaining power of the soil by and at the expense of the owner of the proposed building.

SECTION 41.—PRESSURE UNDER FOOTINGS OF FOUNDATIONS.

The loads exerting pressure under the footings of foundations in buildings more than three stories in height are ot be computed as follows:

For warehouses and factories they are to be the full dead load and the full live load established by Section 123 of this Code.

In stores and buildings for light manufacturing purposes they are to be the full dead load and seventy-five per cent. of the live load established by Section 123 of this Code.

In churches, schoolhouses and places of public amusement or assembly they are to be the full dead load and seventy-five per cent. of the live load established by Section 123 of this Code.

In office buildings, hotels, apartment hotels, dwellings, apartment houses, tenement houses, lodging houses and stables they are to be the full dead load and sixty per cent. of the live load established by Section 123 of this Code.

Footings shall be so designed that the loads will be as nearly uniform as possible, and not in excess of the safe bearing capacity of the soil, established by ection 40 of this Code.

SECTION 42.—FOUNDATIONS.

Every building except buildings erected upon solid rock or buildings erected upon wharves and piers on the water front shall have foundations of brick, stone, iron, steel or concrete laid not less than three feet six inches below the surface of the earth, on the solid ground or level surface of rock, or upon piles or ranging timbers when solid earth or rock is not found.

PILES.

Piles of wood intended to sustain a wall, pier or post shall be so spaced as to divide the load to be carried equally over the piles and not exceed per pile the following limitations:

No wood pile under any circumstances shall be required to sustain a load exceeding 40,000 pounds.

All piles shall be driven to hard bottom or as far as may be necessary to penetrate good stiff soil.

Where piles are not driven to hard bottom their value for sustaining loads in tons shall be determined by the following formula: Twice the weight of the hammer in tons, multiplied by the height of the fall in feet, divided by the average of penetration under the last six blows in inches, plus one, provided that in no case shall the piles be less than fifty feet in length, nor shall they be loaded over 10,000 pounds, and further provided that in case piles are driven upon lands which were salt marshes now or formerly the maximum load to be allowed for any pile driven to hard bottom or penetrating into good bottom shall not exceed the following: When meadow muck constitutes less than 20 feet of the full depth of piles, 18 tons. When meadow muck constitutes between 20 and 30 feet of the full depth of piles, 15 tons. When meadow muck constitutes between 30 and 40 feet of the full depth of piles, 10 tons. When meadow muck constitutes between 40 and 50 feet of the full depth of piles, 7 tons. In making up the above total it is assumed that the piles which are driven true and perpendicular and are filled in around and between the heads and tied together with concrete or capping, the above limitations may be modified by the Inspector of Buildings in special cases or upon presentation in writing of facts and data by a competent engineer or architect showing some reasons for such modification.

The Inspector of Buildings shall be notified of the time when such test piles of wood will be driven, that he may be present, either in person or by representative.

The tops of all piles shall be cut off below the lowest water line.

When required, concrete shall be rammed down in the interspaces between the heads of the piles to a depth and thickness of not less than twelve inches, and for one foot in width outside of the piles.

CONCRETE PILES.

Piles of concrete or reinforced concrete piles may be made of concrete, either reinforced or plain.

Plain concrete piles must be molded in place by methods which are reasonably certain to secure perfect, full-sized piles; reinforced concrete piles, if properly designed to resist the shock of driving, and if driven with a cushion to lessen the shock, or if put down by a water jet may be molded, allowed ot harden, and then driven or jetted into place.

In case concrete piles are used, whether reinforced or otherwise, their bearnig power shall be determined by putting in one or more test piles and loading them, after the concrete is sufficiently hard.

The full working load in the structure shall not be more than one-half of the load under which the pile begins to settle.

In no case, however, shall the load on a concrete pile exceed twenty-five tons per square foot of cross-section of concrete, plus 6,000 pounds per square inch of any longitudinal steel reinforcement. Concrete piles shall always be made of mixture not leaner than one part cement, two and one-half parts sand and five parts gravel or broken stone. The gravel or stone must be capable of passing a one-inch ring, and the concrete must be mixed by machinery, a batch at a time, and the concrete must be turned over completely at least twenty-five times. One complete revolution of the machine, if not too rapid, will count as one turning of the concrete.

RANGING AND CAPPING TIMBERS.

Where ranging and capping timbers are laid on piles for foundations they shall be of hard wood not less than six inches thick and properly joined together, and their tops laid below the lowest water line.

METAL IN FOUNDATIONS.

Where metal is incorporated in or forms part of a foundation it shall be thoroughly protected from rust by paint or asphaltum, and be thoroughly imbedded in concrete, or by such materials and in such manner as may be approved by the Inspector of Buildings.

FOOTINGS FOR COLUMNS.

When footings of iron or steel for columns are placed below tne water level they shall be similarly coated, and inclosed in concrete, for preservation against rust.

LOADS ON FOUNDATIONS.

When foundations are carried down through earth by piers of stone, brick or concrete in caissons, the loads on same shall be not more than:

Fifteen tons to the square foot when carried down to rock;

Ten tons to the square foot when carried down to firm gravel or hard clay;

Eight tons to the square foot in open caissons or sheath pile trenches when carried down to rock.

PILES UNDER FRAME BUILDINGS OVER WATER.

Wood piles may be used for the foundations under frame buildings built over the water or on salt meadow or similar land, in which case the piles may project above the water a sufficient height to raise the building above high tide, and the building may be placed directly thereon without other foundation.

SECTION 43.—FOUNDATION WALLS.

Foundation walls shall be construed to include all walls and piers built below the floor of the cellar, basement or other lowest floor level, to serve as supports for walls, piers, columns, girders, posts or beams.

Foundation walls shall be built of stone, brick, Portland cement concrete, iron or steel.

If built of rubble stone, or Portland cement concrete, they shall be at least eight inches thicker than the wall next above them to a depth of ten feet below the curb level; and for every additional ten feet, or part thereof, deeper, they shall be increased four inches in thickness.

If built of brick they shall be at least four inches thicker than the wall next above them to a depth of twelve feet below the curb level; and for every additional ten feet, or part thereof, deeper, they shall be increased four inches in thickness.

BASE COURSE.

The footing or base course shall be of stone or concrete, or both, or of concrete and stepped-up brickwork, of sufficient thickness and area to safely bear the weight to be imposed thereon.

If the footing or base caurse be of concrete the concrete shall be not less than twelve inches thick.

If of stone, the stones shall not be less than two by three feet, and at least eight inches in thickness for walls; and not less than ten inches in thickness if under piers, columns or posts.

The footing or base course, whether formed of concrete or store, shall be at least twelve inches wider than the bottom width of walls, and at least twelve inches wider on all sides than the bottom width of said pier, columns or posts.

If the superimposed load is such as to cause undue transverse strain on a footing projecting twelve inches, the thickness of such footing is to be increased so as to carry the last with safety.

For small structures, and for small piers sustaining light loads, the Inspector of Building may, in his discretion, allow a reduction in the thickness and projection for footings or base courses herein specifier.

All base stones shall be well bedded and laid crosswise, edge to edge.

STEPPED-UP FOOTINGS.

If stepped-up footing of brick are used in place of stone, above the concrete, the offsets, if laid in single courses, shall each not exceed one and one-half inches, or if laid in double courses, then each shall not exceed three inches, offsetting the first course of brickwork, back one-half the thickness of the concrete base, so as to properly distribute the load to be imposed thereon.

INVERTED ARCHES.

If, in place of a continuous foundation wall, isolated piers are to be built to support the superstructure, where the nature of the ground and the character of the building in the opinion of the Inspector of Buildings make it necessary, inverted arches resting on a proper bed of concrete, both designed to transmit with safety the superimposed loads, shall be turned between the piers. The thrust of the outer piers shall be taken up by suitable wrought iron or steel rods and plates.

GRILLAGE IN FOUNDATIONS.

Grillage beams of wrought iron or steel, resting on a proper concrete bed, may be used. Such beams shall be provided wtih separators and bolts inclosed and filled solid between with concrete, and of such sizes and so arranged as to transmit with safety the superimposed loads.

HEADERS IN STONE WALLS.

All stone walls twenty-four inches or less in thickness shall have at least one header extending through the wall in every three feet in height from the bottom of the wall, and in every three feet in length, and if over twenty-four inches in thickness, shall have one header for every six superficial feet on both sides of the wall, laid on top of each other to bond together, and running into the wall at least two feet.

All headers shall be at least twelve inches in width and eight inches in thickness and consist of good flat stones.

No stone shall be laid in such walls in any other position than on its natural bed.

No stone shall be used that does not bond or textend into the wall at least six inches.

Stones shall be firmly bedded in cement mortar and all spaces and joints thoroughly filled.

SECTION 44.—WALLS, PIERS AND PARTITIONS.—MATERIALS OF WALLS.

The walls of all buildings, other than frame or wood building, shall be constructed of stone, brick, Portland cement concrete, iron or steel, or, if approved by the Inspector of Buildings, other hard, incombustible material, and the several component parts of such buildings shall be as herein provided.

All buildings shall be inclosed on all sides with independent or unpierced party walls.

SECTION 45.—WALLS AND PIERS.

In all walls of the thickness specified in this Code the same amount of materials may be used in piers or buttresses.

BEARING WALLS DEFINED.

Bearing walls shall be taken to mean those wall on which the beams, girders or trusses rest.

BEARING WALLS WITH OPENINGS.

If any horizontal section through any part of any bearing wall in any building shows more than thirty per centum area of flues and openings, the said wall shall be increased four inches in thickness for every fifteen per centum, or fraction thereof, of flue or opening area in excess of thirty per centum.

BRICK AND MASONRY WORK.

The walls and piers of all buildings shall be properly and solidly bonded together with close joints filled with mortar. They shall be built to a line and be carried up plumb and straight.

The walls of each story shall be built up the full thickness to the top of the beams above.

All brick laid in non-freezing weather shall be well wet before being laid.

Walls or piers, or parts of walls and piers, shall not be built in freezing weather, and if frozen, shall not be built upon.

PIERS.

All piers shall be built of good, hard, well-burnt brick laid in cement mortar, excepting that piers fronting on a street may be built of stone.

Every pier built of brick containing less than nine superficial feet at the base supporting any beam, girder, arch or column on which a wall rests, or lintel spanning an opening over ten feet and supporting a wall, shall at intervals of not over thirty inches apart in height have built into it a blue stone or granite template at least four inches thick, a cast iron or steel bond plate or sufficient strength and the full size of the piers.

For piers fronting on a street, bond stones to conform with the kind of stone used for the trimmings of the front may be used above the sidewalk.

Cap stones corresopnding to the trimmings of the front proportioned to the weight to be carried, but not less than four inches in thickness, by the full size of the pier, may be used above the sidewalk for piers fronting on a street. For the capping of all other piers cast iron plates, bluestone or granite of equal strength by the full size of the pier shall be set under all columns or girders.

Isolated brick piers shall not exceed in height ten times their least dimensions.

STONE POSTS UNDER INTERIOR COLUMNS.

Stone posts for the support of posts or columns above shall not be used in the exterior of any building.

PIERS AND WALLS OF COURSED STONE.

Where walls or outside piers are built of coursed stones, with dressed level beds and vertical joints, the Inspetcor of Buildings shall have the right to allow such walls or piers to be built of a less thickness than specified for brickwork, but in no case shall said walls or piers be less than three-quarters of the thickness provided for brickwork.

HEADING COURSES IN BRICK WALLS.

In all brick walls every fifth course shall be heading course, except where walls are faced wtih brick in running bond, in which latter case every sixth course shall be bonded into the backing by cutting the course of the face brick and putting in diagonal headers behind the same, or by splitting the face brick in half and backing the same with a continuous row of headers.

If brick walls are laid in Flemish bond all headers must be full headers, if possible. Where this is not possible the headers of every fifth course must be full headers.

ASHLAR.

Stone used for the facing of any building, and known as ashlar, shall be not less than four inches thick.

Stone ashlar shall be anchored to the backing and the backing shall be of such thickness as to make the walls independent of the ashlar, conform as to the thickness with the requirements of this Code.

Unless the ashlar be at least eight inches thick and bonded into the backing, and then it may be counted as part of the thickness of the wall.

Iron ashlar plates used in imitation of stone ashlar on the face of a wall shall be backed up with the same thickness of brickwork as required for a brick wall without ashlar.

SECTION 46.—MORTAR FOR WALLS AND ASHLAR.

All foundation walls, isolated piers, parapet walls and chimneys above roofs shall be laid in cement mortar.

But this shall not prohibit the use in cold weather of a small proportion of lime to prevent the mortar from freezing.

All other walls built of brick or stone shall be laid in lime, cement, or lime and cement mortar mixed.

The backing up of all stone ashlar shall be laid up with cement mortar, or cement and lime mortar mixed, but the back of the ashlar may be parged with lime mortar or coated asphaltum varnish to prevent discoloration of the stone.

SECTION 47.—LIMITING THE HEIGHT OF BUILDINGS.

No non-fireproof building or structure hereafter erected shall exceed sixty-five feet in height, nor the heights specified for non-fireproof buildings of the several respective classes mentioned in Section 119 of this Code.

No building, or structure hereafter erected, except a church spire, shall exceed in height two and one-half times the width of the widest street upon which it stands, but in no case shall any building be used above the ground floor as warehouses or stores for the storage or sale of merchandise or for factory purposes shall it exceed one hundred feet in height.

Such height shall be the perpendicular distance measured in a straight line, taken at the center of the facade of the building, from the curb level to the highest point of the roof beams, not including in such measurement of height cornices which do not extend more than five feet above the highest point of the roof bears nor inclosures for the machinery of elevators which do not exceed fifteen feet in height, or inclosures for tanks which do not exceed twenty feet in height above the roof beams and do not exceed in united area ten per centum of the area of the roof.

SECTION 48.—WALLS FOR DWELLING HOUSE CLASS.

The expression "walls for dwelling house class" shall be taken to mean and inclue walls for the following buildings:

Apartment Houses,
Apartments Hotels,
Asylums,
Club Houses,
Convents,
Dormitories,
Dwellings,
Hospitals,
Hotels,
Laboratories,
Lodging Houses,
Parish Buildings,
Schools,
Studios,
Tenements,

For buildings hereafter erected in the dwelling house class, the minimum thickness of all independent surrounding and dividing walls in the same, carrying the loads of floors and roofs, shall be made in accordance with the following table:

DWELLING-HOUSE CLASS BRICK. WALLS.

(Minimum thickness in inches.)

Basement.

Height.	Stone.	Brick.	Stories. 1	2	3	4	5	6	7	8	9	10
One story...	16	12	12									
Two stories..	20	12	12	12								
Three stories.	20	12	12	12	12							
Four stories.	20	16	12	12	12	12						
Five stories.	20	16	12	12	12	12	12					
Six stories..	24	20	16	12	12	12	12	12				
Seven stories.	24	20	16	16	12	12	12	12	12			
Eight stories.	28	24	20	16	16	16	16	12	12	12		
Nine stories.	28	24	20	20	16	16	16	16	12	12	12	
Ten stories.	32	28	24	20	20	20	16	16	16	16	12	12

NOTE.—The table above for thickness of walls is based upon a minimum size of brick of about 7⅞x3½x2¼ inches. Sizes of bricks are variable in different sections of the United States.

When the above walls are used for party walls in non-fireproof buildings the ends of the beams shall rest on corbeled ledges, or when entering the twelve-inch sections of the walls shall be staggered. If the beams do not rest on corbeled ledges, or are not so staggered, the twelve-inch sections of the walls shall be increased to not less than sixteen inches in thickness.

When used for bearing party walls in fireproof buildings no portions of the walls shall be less than sixteen inches in thickness.

If any story exceeds the height stated in Section 52 of this Code the thickness of walls shall be increased as stated in said section.

BRICK PARTITION WALLS IN DWELLHOUSES EXCEEDING TWENTY-SIX FEET IN WIDTH.

All non-fireproof buildings, except dwelling houses, erected under this section, exceeding twenty-six feet in width, shall have brick fore and aft partition walls on first floor. Dwelling houses exceeding twenty-six feet in width shall have fore and aft partitions filled with brick, plaster block or other incombustible material on first floor.

PARTITION WALLS.

Eight-inch partition walls may be built to support the beams in such buildings when the distance between the main or bearing walls is not over thirty-three feet;

If the distance between the main or bearing walls is over thirty-three feet the brick partition wall shall be not less than twelve inches thick;

Provided, that no clear span is over twenty-six feet.

LIMITING THE HEIGHT FOR A SINGLE THICKNESS OF WALL.

No section of a wall of the same thickness shall exceed, measuring vertically, the height provided elsewhere in this section and in Sections 49 and 52 of this Code.

IRON COLUMNS AND GIRDERS INSTEAD OF PARTITION WALLS.

This section shall not be construed to prevent the use of iron or steel girders, or iron or steel girders and columns when properly insulated, as provided in Section 120 of this Code, or piers of masonry, for the support of the walls and ceilings over any room which has a clear span of more than twenty-six feet between walls, in such buildings as are not constructed fireproof.

Nor to prohibit the use of iron or steel girders, or iron or steel girders and columns in place of brick walls in buildings which are to be used for residence purposes when constructed fireproof and insulated.

CLEAR SPAN THICKNESS.

If the clear span is to be over twenty-six feet then the bearing walls shall be increased four inches in thickness for every twelve and one-half feet or part thereof that said span is over twenty-six feet.

Or shall have instead of the increased thickness such piers or buttresses as, in the judgment of the Inspector of Buildings, may be necessary.

SECTION 49.—WALLS FOR WAREHOUSE CLASS.

The expression "walls for warehouse class" shall be taken to mean and include walls for the following buildings:

Armories,
Barns,
Breweries,
Carriage Houses,
Churches,
Cooperage Shops,
Court Houses,
Factories,
Foundries,
Garages,
Jails,
Lofts,
Libraries,
Light and Power Houses,
Machine Shops,
Markets,
Mills,
Museums,
Observatories,
Office Buildings,
Police Stations,
Printing Houses,

Public Assembly Buildings,
Pumping Stations,
Railroad Buildings,
Refrigerating Houses,
Slaughter Houses,
Stables,
Stores,
Sugar Refineries,
Theatres,
Warehouses,
Wheelwright Shops.

For buildings hereafter erected in the warehouse class twenty-five feet or less in width between walls or bearings, the minimum thickness of all independent surroundings or dividing walls in the same carrying the loads of floors and roofs shall be made in accordance with the following table:

WAREHOUSE CLASS—BRICK WALLS.

(Minimum Thickness in Inches.)

Height.	Basement. Stone.	Basement. Brick.	Stories. 1	2	3	4	5	6	7	8	9	10
One story	20	16	12									
Two stories	20	16	12	12								
Three stories	20	16	12	12	12							
Four stories	24	20	16	16	16	12						
Five stories	28	24	20	16	16	16	12					
Six stories	32	28	24	20	20	20	16	16				
Seven stories	32	28	24	24	20	20	20	16	16			
Eight stories	36	32	24	24	24	20	20	20	16	16		
Nine stories	36	32	28	24	24	24	20	20	20	16	16	
Ten stories	36	32	28	28	24	24	24	20	20	20	16	16

NOTE.—The above table for thickness upon a minimum size of brick walls is based upon a minimum size of brick of about 7⅞x3½x2¼ inches. Sizes of bricks are variable in different sections of the United States.

When the above walls are used for party wallsr in non-fireproof buildings, the twelve-inch section of the walls shall have corbeled ledges to carry the ends of the beams or be increased in thickness to not less than sixteen inches, and the beams entering the walls shall bestaggered. If the beams do not hest on corbeled ledges or are not so staggered, the twelve and sixteen-inch sections of the wall shall be increased to not less than twenty inches.

When used for bearing party walls in fireproof buildings no portion of the walls shall be less than sixteen inches in thickness.

If any story exceeds the heiget stated in Section 52 of this Code the thickness of walls shall be increased as stated in said section.

CLEAR SPAN THICKNESS.

If there is to be a clear span of over twenty-five feet between the bearing walls, such walls shall be four inches thicker than in this section specified, for every twelve and one-half feet, or fraction thereof, that said walls are more than twenty-five feet apart, or shall have instead of the increased thickness such piers or buttresses as, in the judgment of the Inspector of Buildings, may be necessary.

WALLS FOR PUBLIC BUILDINGS.

The walls of buildings of public character shall be not less than in this Code specified for warehouses with such piers or such buttresses or supplemental columns of iron or steel properly insulated as provided in Section 120 as, in the judgment of the Inspector of Buildings, may be necessary to make a safe and substantial building.

SECTION 50.—PARTITION WALLS OR GIRDERS AND COLUMNS.

In all stores, warehouses and factories over twenty-five feet in width between walls there shall be brick partition walls, or girders supported on iron, steel or wood columns or piers of masonry. When such girders or columns are of iron or steel they shall be properly insulated as provided in Section 120 of this Code.

FLOOR AREAS IN STORES, WAREHOUSES, FACTORIES AND OTHER BUILDINGS.

In all stores, warehouses or factories, in case, iron, steel or wood girders, supported by iron, steel or wood columns or piers of masonry, are used in place of brick partition walls, the building may be fifty-five feet wide and two hundred feet deep, when extending from street to street, or when otherwise located may cover an area of not more than eight thousand superficial feet; when a building fronts on three streets it may be one hundred feet wide and two hundred feet deep, or if a corner building fronting on two streets, it may cover an area of not more than twelve thousand five hundred superficial feet, but in no case wider nor deeper, nor to cover a greater area, except in the case of fireproof buildings.

In the rear of every building of the warehouse class hereafter erected there shall be an unobstructed space not less than ten feet in depth, running the width of the entire lot.

Such measurements may be taken at the level of the second story.

When more than two fireproof or non-fireproof buildings communicate, although protected by double standard fireproof doors, they shall be provided with a system of approved automatic sprinklers where occupied as stores, warehouses and factories.

Openings in the brick fire walls of buildings specified in this section shall in no case exceed eight feet in width, nor more than ten feet in height, and above each such opening there shall be a curtain wall between the top of the opening and the ceiling line of at least three feet. The openings shall be provided with approved automatic self-closing standard fireproof doors on both sides of the wall.

SECTION 51.—INCREASED THICKNESS OF WALLS FOR BUILDINGS MORE THAN TWO HUNDRED AND FIVE FEET IN DEPTH.

All buildings, not excepting dwellings, that are over two hundred and five feet in depth, without a cross wall or proper piers or buttresses, shall have the side o bearing walls increased in thickness four inches more than is specified in the respective sections of this Code for the thickness of walls for every two hundred and five feet, or part thereof, that the said buildings are over two hundred and five feet in depth.

REDUCED THICKNESS FOR INTERIOR WALLS.

In case the walls of any building are less than twenty-five feet apart, and less than forty feet in depth, or there are cross walls which intersect the walls, not more than forty feet distant, or piers or buttresses built into he walls, the interior walls may be reduced in thickness in just proportion to the number of cross walls, piers or buttresses, and their nearness to each other; provided, however, that this clause shall not apply to walls below fifty-five feet in height, and that no such wall shall be less than twelve inches thick at the top, and gradually increasing in thickness by set-offs to the bottom.

The Inspector of Buildings is hereby authorized and empowered to decide (except where herein otherwise provided for) how much the walls herein mentioned may be permitted to be reduced in thickness without endangering the strength and safety of the building, according to the peculiar circumstances of each case.

SECTION 52.—HEIGHT OF STORIES.

The height of stories for all given thicknesses of walls shall not exceed—
First Story .....16 feet in the clear
Second Story .....14 feet in the clear
Third Story .....12 feet in the clear
Fourth and upper stories.11 feet in the clear

And if any story exceeds the foregoing heights, the walls of any such story and all walls below that story shall be increased four inches in thickness.

The height of a story shall be perpendicular distance from the top of the finished floor in one story to the under side of the finished ceiling in the same story.

MEANING OF STORIES.

The first story shall be taken to mean the story the floor of which is first above the basement.

The upper stories shall be taken to mean the stories the floors of which are above the first story and numbered in regular succession, counting upwards.

MEANING OF BASEMENT AND CELLAR.

A basement shall be taken to mean that portion of a building the floor of which is below the curb level at the center of the front of the building more than one foot, and not more than three-fourths of the height of said portion measuring from floor to ceiling.

A cellar shall be taken to mean the lowest portion of a buildiig the floor of which is below the curb level at the center of the front of the building more than three-fourths of the height of said portion measuring from the floor to the ceiling.

SECTION 53.—INCLOSURE WALLS FOR SKELETON STRUCTURES.

Walls of brick built in between iron or steel columns and supported wholly or in part on iron or steel girders.

Shall be not less than twelve inches thick for sixty-five feet of the uppermost height therof, or to the nearest tier of beams to that measurement, in any building so constructed.

And the lower section of sixty feet or to the nearest tier of beams to such vertical measurement, or part thereof, shall have a thickness of four inches more than is required for the section next above it down to the tier of beams nearest to the curb level.

And thence downward, the thickness of walls shall increase in the ratio prescribed in Section 43 of this Code.

REDUCED THICKNESS FOR ADJOINING WALLS.

When two independent buildings of skeleton type of construction and of the same height adjoin each other, the thickness of the said independent walls aobve the foundations for such sections where they adjoin may be not less than eight inches.

SECTION 54.—CURTAIN WALLS.

Curtain walls shall be taken to mean walls built in the interior of a building between piers or iron or steel columns, and being non-bearing walls—

Shall be not less than twelve inches thick for sixty-five feet of the uppermost height thereof or nearest tier of beams of that height.

And increased four inches for the lower section of sixty feet or nearest tier of beams to that height;

And thence downward the thickness of walls shall increase in the ratio prescribed in Section 26 of this Code.

SECTION 55—EXISTING PARTY WALLS.

Walls heretofore built for or used as party walls, whose thickness at the time of their erection was in accordance with the requirements of the then existing laws, but which are not in accrodance with the requirement of this Code, may be used if in good condition, for the ordinary uses of party walls, provided the height of the same be not increased more than six feet above the level of the existing roof.

SECTION 56.—LINING EXISTING WALLS.

In case it is desired to increase the height of existing party or independent walls which are less in thickness than required under this Code, excepting as above provided, the same shall be done by a lining of brickwork to form a combined thickness with the old wall of not less than four inches more than the thickness required for a new wall corresponding with the total height of the wall when so increased in height.

The said lining shall be supported on proper foundations.

And carried up to such height as the Inspector of Buildings may require.

No lining shall be less than eight inches in thickness, and all lining shall be laid up in cement mortar and thoroughly anchored to the old brick walls with the suitable wrought iron anchors, placed two feet apart and properly fastened or driven into the old walls in rows alternating vertically and horizontally with each other, the old walls being first cleaned of plaster or other coatings where any lining is to be built against the same.

No rubble stone wall shall be lined except after inspection and approval by the Inspector.

SECTION 57.—WALLS OF UNFINISHED BUILDINGS.

Any building, the erection of which was commenced in accordance with specifications and plans submitted to and approved by the Inspector of Buildings prior to the passage of this Code, if properly constructed, and in safe condition, may be completed or built upon in accordance with the requirements of law, as to thickness of walls in force at the time when such specifications and plans were approved.

SECTION 58.—WALLS TIED, ANCHORED AND BRACED.

In no case shall any wall or walls of any building be carried up more than two stories in advance of any other wall, except by permission of the Inspector of Buildings.

And this prohibition shall include the inclosure walls for skeleton buildings.

The front, rear, side and party walls shall be properly bonded together or anchored to each other evey six feet in their height by wrought iron tie anchors not less than one and a half inches by three-eights of an inch in size, and not less than twenty-four inches in length.

The side anchors shall be built into the side or party walls not less than sixteen inches and into the front and rear walls, so as to secure the front and rear walls to the side, or party walls, when not built and bonded together.

All exterior piers shall be anchored to the beams or girders on the level of each tier.

WALLS TO BE BRACED.

The walls and beams of every building, during the erection or alteration thereof, shall be strongly braced from the beams of each story, and, when required, shall also be braced from the outside, until the building is inclosed.

The roof tier of work beams shall be safely anchored with plank or joist to the beam of the story below unil the building is inclosed.

SECTION 59.—ARCHES AND LINTELS.

Openings for doors and windows in all buildings shall have good and sufficient arches of stone, brick or terra cotta, well built and keyed with good and sufficient abutments, or lintels of stone, iron or steel of sufficient strength, which shall have a bearing at each end of not less than five inches on the wall.

INSIDE LINTELS.

On the inside of all openings in which lintels shall be less than the thickness of the wall to be supported there shall be timber lintels, which shall rest at each end not more than three inches on any wall, which shall be chamfered at each end, and shall have a suitable arch turned over the timber lintel.

Or the inside lintel may be of cast iron or wrought iron or steel, and in such cases tone blocks or cast iron plates shall not be required at the ends where the lintel rests on the walls, provided the opening is not more than six feet in width.

MASONRY ARCHES.

All masonry arches shall be capable of sustaining the weight and pressure which they are designed to carry, and the stress at any point shall not exceed the working stress for the material used, as given in Section 131 of this Code.

Tie rods shall be used where necessary to secure stability in accordance with current good practice.

SECTION 60.—PARAPET WALLS.

All exterior and division or party walls over fifteen feet high, excepting where such walls are to be finished with cornices, gutters or crown moldings, shall have parapet walls not less than eight inches in thickness and carried two feet above the roof.

But for warehouses, factories, stores and other buildings used for commercial or manufacturing purposes the parapet walls shall be not less than twelve inches in thickness and carried three feet above the roof.

And all such walls shall be coped with stone, terra cotta or cast iron.

SECTION 61.—HOLLOW WALLS.

In all walls that are built hollow the same quantity of stone, brick or concrete shall be used in their construction as if they were built solid, as in this Code provided.

And no hollow wall shall be built unless the parts of same are connected by proper ties, either of brick, stone or iron, placed not over twenty-four inches apart.

SECTION 62.—HOLLOW BRICKS ON INSIDE OF WALLS.

The inside four inches of any wall may be built of hard-burnt hollow brick, properly tied and bonded by means of full header courses every sixth course into the walls, and of the dimension of the ordinary bricks.

Where hollow tile or porous terra cotta blocks are used as lining or furring for walls they shall not be included in the measuement of the thickness of such walls.

SECTION 63.—RECESSES AND CHASES IN WALLS.

Recesses for stairways or elevators may be left in the foundation or cellar walls of all buildings, but in no case shall the walls be less thickness than the walls of the fourth story, unless reinforced by additional piers with iron or steel girders, or iron o steel columns and giders, properly insulated and securely anchored to walls on each side.

RECESSES FOR ALCOVES.

Recesses for alcoves and similar purposes shall have no less than eight inches of brickwork at the back of such recesses, and such recesses shall be not more than eight feet in width, and shall be arched over or spanned with iron or steel lintels, and not carried up higher than eighteen inches below the bottom of the beam of the floor next above.

CHASES FOR PIPES.

No chase for water or other pipes shall be made in any pier, and in no wall more than one-third of its thickness.

The chases around said pipe or pipes shall be filled up with solid masonry for the space of one foot at the top and bottom of each story.

No horizontal recess or chase in any wall shall be made exceeding four feet in length without permission of the Inspector of Buildings.

AGGREGATE AREA FOR RECESSES AND CHASES.

The aggregate area of recesses and chases in any wall shall not exceed one-fourth of the whole area of the face of the wall on any story nor shall any such recess be made within a distance of six feet from any other recess in the same wall.

SECTION 64.—FURRED WALLS.

In all walls furred with wood the brick-work between the ends of wood beams shall project the thickness of the furring beyond the inner face of the wall for the full depth of the beams.

SECTION 65.—LIGHT AND VENT SHAFTS.

In every building hereafter erected or altered all the walls and partitions forming interior light or vent shafts shall be built of brick, except that when the area of any such shafts does not exceed twenty-five square feet the inclosing walls or partitions may be of such other fireproof materials as may be approved by the Inspector of Buildings.

The walls of all light or vent shafts, whether exterior or interior, hereafter erected shall be carried up not less than three abov the level of the roof.

And the brick walls shall be coped as other parapet walls.

When the shaft is covered by a ventilating skylight of metal and glass the walls neer not be carried more than two feet above the roof.

When metal louvres are used for ventilating purposes the louvres or slats shall be riveted to the metal frame.

ONE-STORY VENT SHAFTS IN PRIVATE DWELLINGS.

Vent shafts not more than twenty square feet in area to light interior bath rooms in private dwellings may be built of wood studs filled in solidly with brick or hard-burnt clay blocks, or of wood covered on all sides with metals, metal lath and plaster or plaster boards, when extending through not more than two feet above the roof, and covered with a ventilating skylight of metal and glass.

SECTION 66.—BRICK AND HOLLOW TILE PARTITIONS.

Eight-inch brick and six-inch hollow tile and four-inch brick and four-inch hollow tile partitions, of hard-burnt clay or porous terra cotta laid up with cement mortar, may be built, not exceeding in their vertical portions a measurement of fifty for the eight-inch, thirty-six for the six-inch and twenty-four feet for the four-inch, respectively, and in their horizontal measurement a length not exceeding seventy five feet, unless said partition walls are strengthened by proper cross-walls, piers or buttresses, or built in iron or steel framework when the latter is imbedded in or insulated by the same material of which the partition is constructed.

All such partitions shall be carried on proper foundations, or on iron or steel girders and columns, properly insulated, or piers of masonry.

SECTION 67.—CELLAR PARTITIONS IN RESIDENCE BUILDINGS.

One line of fore and aft partitions in the cellar or lowest story, supporting stud partitions above, in all residence buildings over twenty feet between bearing walls in the cellar or lowest story hereafter erected, shall be constructed of brick not less than eight inches thick.

Or piers of brick with openings arched over below the underside of the first tier of beams.

Or girders of wood or iron or steel and iron columns or piers of masonry may be used.

Or if iron or steel floor beams spanning the distance between bearing walls are used of adequate strength to support the stud partitions above in addition to the floor load to be sustained by the said iron or steel beams, then the fore and aft brick partition, or its equivalent, may be omitted.

Stud partitions which may be placed in the cellar or lowest story of any building shall have good solid stone, brick or cement concrete foundation walls under the same, which shall be built up to the top of the floor beams or sleepers, and the sills of said partitions shall be of locust or other suitable hard wood; but if the walls are built of brick, five inches higher than the top of the floor beams or sleepers, any wooden sill may be used on which the studs shall be set.

SECTION 68.—MAIN STUD PARTITIONS.

In residence buildings twenty-six feet (26 ft.) and over in width, where fore and aft stud partitions rest directly over each other, they shall run down between the wood floor beams and rest on the top plate of the partition below.

And shall have the studding filled in solid between the uprights to the depth of the floor beams with suitable incombustible materials.

SECTION 69.—TIMBER IN WALLS PROHIBITED.

No timber shall be used in any wall of any building where stone, brick, cement, concrete or iron are commonly used, except inside lintels, as herein provided, and brace blocks not more than eight inches in length.

SECTION 70.—TENEMENT HOUSES.

A tenement house is any house or building or portion thereof which is rented, leased, let or hired out to be occupied as the home or residence of three families or more, living independently of each other and doing their cooking upon the premises, or by more than two families upon any floor, so living and cooking, but having a common right in the halls, stairways, yards, water closets or privies, or some of them.

SECTION 71.—TENEMENT HOUSE PERMITS.

Before using a permit for the erection or alteration of any tenement house the Inspector of Buildings shall require satisfactory evidence that the plans have been approved by the State Board of Tenement House Supervision, and all work of such buildings shall be done in accordance with the State laws relating thereto.

SECTION 72.—VAULTS, AREAWAYS AND CELLARS.—CELLARS TO BE CONNECTED WITH SEWERS.

Before the walls of buildings are carried above the foundation walls the cellar shall be connected with the street sewers.

Should there be no sewer in the street, or if the cellars are below water level, or below the sewer level, then provision shall be made by the owner to prevent water accumulating in the cellars to the injury of the foundations.

SECTION 73.—VAULTS UNDER SIDEWALKS.

In buildings where the space under the sidewalks is utilized a sufficient stone or brick wall, or brick arches between iron or steel beams, shall be built to retain the raadway of the street, and the side, end or party walls of such building shall extend under the sidewalk of sufficient thickness to such wall.

The roofs of all vaults shall be of incombustible material.

Openings in the roofs of vaults for the admission of coal or light, or for manholes, or for any other purposes, if placed outside the area line, shall be covered with glass set in iron frames, each unit of glass to measure not more than sixteen square inches, or with iron covers having a rough surface, and rabbeted into or made flush with the sidewalk.

SECTION 74.—AREAWAYS.

All areaways shall be properly protected with suitable railings or be covered over.

When areaways are covered over iron, or iron and glass combined, stone or other incombustible materials shall be used, and be supported on brick or stone walls or on iron or steel beams.

SECTION 75.—CELLAR FLOORS.

The floor of the cellar or lowest story in every dwelling house, apartment house, tenement house, lodging house, hotel, apartment hotel, workshop, factory, school, church, hospital and asylum hereafter erected,

Shall be concreted not less than four inches thick.

Where wood floors are to be laid in such cellars or lowest stories the sleepers shall be placed on top of the concrete.

SECTION 76.—CELLAR CEILINGS.

The ceiling over every cellar or lowest floor in every residence building, whether occupied by one or more families, more than three stories in height, hereafter erected, when the beams are of wood.

Shall be lathed with iron or wire lath and plastered thereon with two coats of brown mortar of good materials.

Or shall be covered wtih plaster boards not less than one-half inch in thickness, made of plaster and strong fiber, and all joints be made true and well pointed.

SECTION 77.—WOOD BEAMS, GIRDERS AND COLUMNS.—WOOD BEAMS.

All wood beams and other timbers in any wall of a building built of stone, brick, concrete or iron shall be separated from the bea mor timber entering in the opposite side of the wall by at least four (4) inches of solid mason work; such separation may be obtained by corbeling or by staggering the beams.

MINIMUM THICKNESS FOR WOOD BEAMS.

No wood floor beams or wood roof beams used in any building, hereafter erected, except in a frame building, shall be of less thickness than three inches nor less depth than eight inches.

TRIMMER AND HEADER BEAMS AND TAIL BEAMS.

All wood trimmer and header beams shall be proportioned to carry with safety the loads they are intended to sustain.

The ends of all tail beams shall be properly framed into the header beams.

STIRRUP IRONS.

Every wood header bea mmore than four feet long used in any building shall be suitably framed and be hung to the trimmer beams in stirrup irons of proper thickness for the size of the timbers.

When it is not practicable to frame the ends of tail beams into header beams the ends of the tail beams shall be hung to the header beams by stirrup irons of proper size and strength.

BEARING FOR WOOD BEAMS.

Every wood beam, except header beams, shall rest at one end four inches in the wall or upon a girder as authorized by this Code, unless the wall is properly corbeled out four inches, in which case the brickwork or corbeling shall extend to the top of the floor beams.

BEVEL ENDS FOR WOOD BEAMS.

The ends of all wood floor and roof beams, where they rest on brick walls, shall be cut to a bevel of three inches on their depth.

ENDS OF BEAMS NOT TO REST ON STUD PARTITIONS.

In no case shall either end of a floor or roof beam be supported on stud partitions except in frame buildings.

CROSS-BRIDGING FOR BEAMS.

All wood floor and roof beams shall be properly bridged with cross-bridging, and the distance between bridging or between bridging and walls shall not exceed eight feet.

BEAMS NEAR FLUES.

All wood beams shall be trimmed away from all flues and chimneys, whether the same be a smoke, air or any other flue or chimney. The trimmer beam shall be not less than eight inches from the inside face of a flue and four inches from the outside of a chimney breast, and the header beam not less than two inches from the outside face of the brick or stonework of the same.

The header beam, carrying the tail beams of the floor, and supporting the trimmer arch in front of a fireplace, shall be not less than twenty inches from the chimney breast.

SECTION 78.—ANCHORS AND STRAPS FOR WOOD BEAMS AND GIRDERS.

Each tier of beams shall be anchored to the side, front, rear or party walls, at intervals of not more than six feet apart, with good, strong, wrought-iron anchors of not less than one and one-half inches by three-eights of an inch in size, well fastened to the side of the beams by two or more nails made of wrought iron at least one-fourth of an inch in diameter.

GIRDER STRAPS AND ANCHORS.

Where the beams are supported by girders the girders shall be anchored to the walls and fastened to each other by suitable iron straps.

BEAM STRAPS.

The ends of all wood beams resting upon girders shall be butted together end to end and strapped by wrought-iron straps of the same size and distance apart, and in the same beam as the wall anchors, and shall be fastened in the same manner as said wall anchors.

Or they may lap each other at least twelve inches and be well spiked or bolted together where lapped.

WOOD ANCHOR STRIPS.

Each tier of beams, front and rear, opposite each pier, shall have hardwood anchor strips dovetailed into the beams diagonally, which strips shall cover at least four beams and be one inch thick and four inches wide, but no such anchor strips shall be let in within four feet of the centre line of the beams.

Or wood strips may be nailed on top of the beams and kept in place until the floors are being laid.

PIER ANCHORS.

Every pier and wall, front or rear, shall be wel anchored to the beams of each story, with the same size anchors as are required for side walls, which anchors shall hook over the fourth beam.

SECTION 79.—TIMBER FOR TRUSSES.

When compression members of trusses are of timber they shall be strained in the direction of the fiber only.

When timber is strained in tension it shall be strained in the direction of the fiber only.

The working stress in timber struts of pinconected trusses shall not exceed 75 per cent. of the working stresses established in Section 131 of this Code.

BOLTS AND WASHERS FOR TIMBER WORK.

All bolts used in conection with timber and wood beam work shall be provided with washers of such proportions as will reduce the compression on the wood at the face of the washer to that allowed in Section 131 of this Code, supposing the bolt to be strained to its limit.

SECTION 80.—MILL CONSTRUCTION.

The term "mill construction" shall apply to all floors and roofs in which no wood floor or roof beam, girder, post or other timber shall be less than eight inches in either of its cross-dimensions. The floor and roof beams shall be covered over with plank not less than three inches in thickness, splined or tongued and grooved, and for the floors there shall be laid on top of the plank in a cross-wise or diagonal direction boards not less than one inch in thickness, tongued and grooved and properly nailed. Between the floor boards and the planking there shall be placed two thicknesses of carefully laid waterproof material, and this material shall be flashed at least three inches around all walls and posts or columns and openings with moldings or base.

If wood posts are used to support mill constructed floors and roofs none shall be of smaller sectional area than one hundred square inches nor be less than ten inches in either dimension except for posts in the top story, which shall not be smaller sectional area than sixty-four square inches nor be less than eight inches in either dimension.

Wood posts shall have cast-iron caps or boxes so constructed as to form a base for the next post above. The ends of the Girders shall be secured to the cap or box in such manner as to be self-releasing.

SECTION 81.—CHIMNEYS, FLUES, FIREPLACES AND HEATING PIPES.

All open fireplaces and chimney breasts where mantels are placed, whether intended for ordinary fireplace uses or not, shall have trimmer arches to support hearths:

And the said arches shall be at least twenty inches in width, measured from the face of the chimney braest, and they shall be constructed of brick, stone, burnt clay or concrete.

TThe length of a trimmer arch shall be not less than the width of the chimney breast.

Wood centers under trimmer arches shall be removed before plastering the ceiling underneath.

If a heater is placed in a fireplace, then the hearth shall be the full width of the heater.

All fireplaces in which heaters are placed shall have incombustible mantels.

No wood mantel or other woodwork shall be exposed back of a summer piece; the ironwork of the summer piece shall be placed aganist the brick or stonework of the fireplace. No fireplace shall be closed with wood fireboard.

SECTION 82.—CHIMNEYS, FLUES AND FIREPLACES.

All flues hereafter erected, altered or repaired, without reference to the purpose to which they may be used, shall be lined on the inside with well-burnt clay or terra cotta pipe. TThe firebacks of all fireplaces hereafter erected shall be not less than eight inches in thickness, of solid brickwork, nor less than twelve inches if of stone.

When a grate is set in a fireplace a lining of firebrick at least two inches in thickness shall be added to the fireback unless soapstone, tile or cast iron is used and filled solidly behind with fireproof material.

The walls of all high-pressure boiler flues shall be not less than twelve inches, and the inside four inches of such walls shall fire brick, laid in fire mortar, for a distance of twenty-five feet in any direction from the source of heat.

All smoke flues of smelting furnaces or of steam boilers or other apparatus which heat the flues to a high temperature shall be built with double walls of suitable thickness for the temperature with an air space between the walls, the inside four inches of the flues to be of fire brick, laid in fire mortar, for a distance of twenty-five feet in any direction from the source of heat.

For any now existing brick building where it becomes necessary to provide a smoke flue of larger size than any flue within the building, such flue may be placed on the outside of the buildnig, but wtihin the lot lines of same, and be made round in shape and of galvanized sheet metal, not less than one-tenth of an inch in thickness, properly riveted together at all joints, and be carried up to height not less than ten feet above the roof, and be properly braced at intervals for its entire length, with flat iron bands secured with expansion bolts to the wall, leaving a free air space of not less than four inches between the outside of the metal flue and the brick wall of the building, and have a clean-out door at the bottom. This metal flue shall rest on a suitable cast-iron plate at the bottom, supported on a suitable foundation of masonry.

All smoke flues shall extend at least three feet above a flat roof, and at least two feet above the highest point of a peak roof.

On dwelling houses and stables three stories or less in height, not less than six of the top courses of achimney may be laid in pure cement mortar and the brickwork carefully bonded and anchored together in lieu of coping.

CHIMNEY FLUES TO BE LINED WITH PIPE.

In all buildings hereafter erected every smoke flue, except the lines hereinbefore mentioned, shall be lined continuously on the inside with well-burnt clay, or terra-cotta pipe, made smooth on the inside, from the bottom of the flue, or from the throat of the fireplace, if the flue starts from the latter, and carried up continuously to the extreme height of the flue. The ends of all such lining pipes shall be made to fit close together and the pipe shall be built in as the flue or flues are carried up. Each flue shall be enclosed on all sides with not less than four inches of solid brickwork properly bonded together.

No smoke flue shall be less than eight by eight inches, nor any furnace or laundry stove flue less than eight by twelve inches, exclusive of the thickness of the lining in each case.

Flues for the use of gas stoves or gas grates may be of less dimensions within pipe or tile-lined flues, but no such flue shall be less than four inches clear inside diameter of the pipe or tile; this shall not prevent the placing together of not more than four such gas flues within an inclosure of brickwork of the thickness hereinbefore stated, including the lining of same.

FLUES TO BE LEFT CLEAN.

All flues in every building shall be properly cleaned and all rubbish removed, and the flues left smooth on the inside upon the completion of the building.

SECTION 83.—CHIMNEY SUPPORTS.

No chimney shall be started or built upon any floor or beam of wood.

In no case shall a chimney be corbeled out more than eight inches from the wall, and in all such cases the corbeling shall consist of at least five courses of brick.

Where chimneys are supported by piers the piers shall start from the foundation on the same line with the chimney breast, and shall be not less than twelve inches on the face, properly bonded into the walls.

Whe na chimney is to be cut off below, in whole or in part, it shall be wholly supported by stone, brick, iron or steel.

All chimneys which shall be dangerous in any manner whatever shall be repaired and made safe, or taken down.

SECTION 84.—CHIMNEY OF CUPOLAS.

Iron cupola chimneys of foundries shall extend at least ten feet above the highest point of any roof within a radius of fifty feet of such cupola, and be covered on top with aheavy wire netting, and capped with a suitable spark arrester.

No woodwork shall be placed within two feet of the cupola.

SECTION 85.—HOT AIR FLUES, PIPES AND VENT DUCTS.

All stone or brick hot air flues and shafts shall be lined with tin, galvanized iron or burnt clay pipes.

No wood casing, furring or lath shall be placed against or cover any smoke flue or metal pipe used to convey hot air or steam.

No smoke pipe shall pass through any floor.

No stove pipe shall be placed nearer than nine inches to any lath and plaster or board partition, ceiling or any woodwork.

Smoke pipes of laundry stoves, large cooking ranges and of furnaces shall be not less than fifteen inches from any woodwork, unless they are properly guarded by metal shields; if so guarded, stove pipes shall be not less than nine inches distant.

SMOKE PIPES THROUGH ROOFS.

No smoke pipe shall pass through the roof of any building unless a special permit be first obtained from the Inspector of Buildings for the same. If apermit is so granted, then the roof through which the smoke pipe passes shall be protected in the following manner. A galvanized iron ventilated thimble of the following dimensions shall be placed: In case of a stove pipe, the diameter of the outside guard shall be not less than twelve inches, and the diameter of the inner one eight inches larger than the smoke pipe, and for all furnaces, or where similar large, hot fires are used, the diameter of the outside guard shall be not less than eighteen inches, and the diameter fo the inner one twelve inches larger in diameter than pipe. The smoke pipe thimbles shall extend from the under side of the ceiling or roof beams to at least nine inches above the roof, and they shall have openings for ventilation at the lower end where the smoke pipes enter, also at the top of the guards above the roof.

Where a smoke pipe of a boiler passes through a roof the same shall be guarded by a ventilated thimble, same as before specified, thirty-six inches larger than the diameter of the smoke pipe of the boiler.

HOT AIR PIPES IN WALLS.

Tin or other metal pipes in brick or stone walls, used or intended to be used to convey heated air, shall be covered with brick or stone at least four inches in thickness.

Woodwork near hot air pipes shall be guarded in the following manner: A hot air pipe shall be placed inside another pipe, one inch larger in diameter, or a metal shield shall be placed not less than one-half inch from the hot air pipe; the outside pipe or the metal shield shall remain one and a half inches away from the woodwork, and the latter must be tin lined, or in lieu of the above protection, four inches of brickwork may be placed between the hot air pipe and the woodwork. This shall not prevent the placing of metal lath and plaster directly on the face of hot air pipes or the placing of metal and plaster directly on the face of hot air pipes or the placing of woodwork on such metal or plaster, provided the distance between such woodwork and the metal lath is not less than seven-eighths of an inch.

No vertical hot air pipe shall be placed in a stud partition, or in a wood inclosure, unless it be at least eight feet distant in a horizontal direction from the furnace.

HOT AIR PIPES IN CLOSETS.

Hot air pipes in closets shall be double, with a space of one inch between them.

HORIZONTAL HOT AIR PIPES.

Horizontal hot air pipes shall be placed six inches below the floor beams or ceiling; if the floor beams or ceiling are plastered and protected by a metal shield, then the distance shall be not less than three inches.

DUCTS FOR VENTILATION.

Vent flues or ducts for the removal of foul or vitiated air, in which the temperature of the air cannot exceed that of the rooms, may be constructed of iron, or other incombustible material, and shall not be placed nearer than one inch to any woodwork, and no such pipe shall be used for any other purpose.

In buildings of fireproof construction ventilating shafts passing through floors shall be constructed of fireproof material not less than four inches in thickness. Any opening in such ducts or shafts shall be protected by automatically closing fire doors or by metal louvres riveted into metal frames, and such ducts shall open to the outside of the building.

VENT DUCTS IN PUBLIC SCHOOLS.

In the support or construction of such ducts, if placed in a public school room, no wood furring or other inflammable material shall be nearer than two inches to said flues or ducts, and shall be covered on all sides, other than those resting against brick, terra cotta or other incombustible material, with metal lath plastered with at least two heavy coats of mortar, and having at least one-half inch air space between the flues or ducts and the lath and plaster.

SECTION 86.—STEAM AND HOT WATER HEATING PIPES.

Steam or hot water heating pipes shall not be placed within two inches of any timber or woodwork, unless the timber or woodwork is protected by a metal shield; then the distance shall be not less than one inch.

All steam or hot water heating pipes passing through floors and ceilings or lath and plastered partitions shall be protected by a metal tube passing entirely through floor and ceilings or partitions one inch larger in diameter than the pipe, having a metal cap at the floor and where they are run in a horizontal direction between a floor and ceiling, a metal shield shall be placed on the underside of the floor over them, and on the side of wood beams running parallel with the said pipes.

All wood boxes or casings inclosing steam or hot water heating pipes and all wood covers to recesses in walls in which steam or hot water heating pipes are placed, shall be lined with metal.

All pipes or ducts used to convey air warmed by steam or hot water shall be of metal or other fireproof material.

All steam and hot water pipe coverings shall consist of fireproof material only.

PLUMBING PIPES.

Cold water or other exposed plumbing pipes shall have the surrounding air space closed off at the ceiling and floor line of any floor through which any such pipe or pipes shall be carried.

SECTION 87.—GENERAL CONSTRUCTION.

DUCTS FOR PIPES.

All ducts for pipes, wires and other similar purposes shall be inclosed on all sides with fireproof material.

And the opening through each floor shall be properly fire-stopped.

Any door opening in such duct shall be provided with a self-closing fireproof door.

If the area of such duct exceeds four square feet, the thickness of the fireproof inclosure shall be not less than four inches, and shall extend by a proper fireproof outlet to and through the roof.

SECTION 87a.—STUDDED-OFF SPACES.

Where walls are studded off, the space between the inside face of the wall and the studding shall be fire-stopped with fireproof material placed on the underside of the wood beams above for a depth of not less than four inches, and be securely supported.

Or the beams directly over the studded off space shall be deafened with not less than four inches of fireproof material, which may be laid on boards cut in between the beams.

SECTION 88.—SHEATHING AND WAINSCOTING.

No wall or ceiling in any building hereafter erected other than buildings or portions of buildings occupied exclusively for dwelling or club purposes shall be covered with wood sheathing, or any combustible material.

But this shall not exclude, excepting in theatres, the use of wood wainscoting to a height not to exceed six feet when the surface of the wall or partition behind such wainscoting shall be plastered flush with the grounds and down to the floor line, thereby solidly filling the space between the wainscoting and the surface of the wall or partition with incombustible material.

SECTION 89.—ATTICS OR COCK LOFTS IN PEAKED ROOFS.

No part of any attic or cock loft below or within the trusses or rafters of a pitched roof of any building other than a dwelling house hereafter erected shall be so built as to provide an accessible place for the storage or placing therein of any articles whatever. If any portion of the roof trusses, rafters or beams of a pitched roof is ceiled or plastered, or a ceiling is suspended therefrom to form a ceiling for the uppermost story of a building, the space above such ceiling shall not be used for the storage or placing of any article whatever therein, and entrance to such place shall be made inaccessible. This, however, shall not prohibit a tightly inclosed vertical well-hole through such space to ascend to the scuttle door on the roof. In any existing building it is hereby declared unlawful to use or occupy the space above the ceiling and within the trusses or rafters of a pitched roof for the storage or placing of any article whatever therein, nor shall any stove pipe or smoke flue other than a brick chimney pass through any attic or cock loft.

SECTION 90.—BAY WINDOWS.

Bay windows may be put in any building facing on any street, excepting Court street, provided that such bay windows shall not project a greater distance than three feet beyond the building line.

SECTION 91.—STAIRS AND ENTRANCES. ENTRANCE TO BASEMENT.

Every dwelling house arranged for or occupied by two or more families above the first floor, hereafter erected, shall be provided with an entrance to the basement thereof from the outsile of the building.

STAIRS, NUMBER REGULATED BY AREA OF BUILDING.

In any building hereafter erected to be used as an office building, store, factory, hotel, lodging house or school, covering a lot area:

Exceeding five thousand feet and not exceeding ten thousand feet, there shall be provided at least two continuous lines of stairs remote from each other.

A fire escape built as a stairway shall be considered one line.

And every such building shall have at least one continuous line of stairs for each ten thousand feet of lot area covered or part thereof, in excess of that required for ten thousand feet of area.

When any such building covers an area of lot greater than thirty thousand feet the number of stairs shall be increased proportionately, or as will meet with the approval of the Inspector of Buildings.

The width of the stairs required by this section shall in no case be less than three feet six inches in the clear between hand rails or between the hand rail and an inclosed side of the stairs, and shall be increased in width when in the opinion of the Inspector of Buildings an increased width is necessary for the safety of the occupants, up to five feet.

All such stairs shall have treads of uniform width and risers of uniform height throughout in each flight, and the risers shall be not more than eight inches in height and the treads, exclusive of nosings, not less than ten inches.

The stairs shall be provided with proper banisters or railings and hand rails and kept in good repair.

SECTION 92.—ENGINEERS' STATIONARY LADDERS.

Every building in which boilers or machinery are placed in the cellar or lowest story, shall have stationary iron ladders or stairs from such story leading direct to a manhole above on the sidewalk, or other outside exit.

SECTION 93.—SLATE AND STONE TREADS OF STAIRS TO BE SUPPORTED.

In all buildings hereafter erected where the treads and landings of iron stairs are of slate, marble or other stone,

There shall be placed directly underneath each tread and each landing for their entire length and width, a wrought iron of steel plate made solid or having openings not exceeding four inches square in same, or adequate strength, but in no case less than one-eighth of an inch in thickness, and in each and every case securely fastened to the strings with bolts or rivets, or to the both strings and risers if the treads be more than three and one-half feet long, so that said plates shall in themselves furnish a safe passageway independent of the slate, marble or other stone placed thereon.

If stairs are constructed of other fireproof material than iron and the slate, marble or other stone treads and landings are each solidly supported for their entire length and width by the materials composing such stairs, iron support plates shall not be required.

SECTION 94.—SKYLIGHTS AND FLOOR-LIGHTS.—METAL SKYLIGHTS.

The term "skylight" shall be taken to mean and include flat, hipped, lantern, monitor, turret, dome, vertical or pitched sawtooth constructions, and all other covers placed over openings on roofs for the admission of light.

All skylights placed on or in any building shall have the frames and sash thereof constructed of metal and glazed.

All openings in roofs for the admission of light other than elsewhere provided in this Code over elevator, stair, dumbwaiter shafts and theatre stage roofs, shall have metal frames and sash, glazed with wire glass not less than one-quarter inch thick, or with glass protected above and below with wire screens of not less than No. 12 galvanized wire, and not more than one inch mesh.

SKYLIGHTS OVER PUBLIC PASSAGEWAY.

Skylights hereafter placed in buildings of a public character over any passageway or room of public resort shall have immediately underneath the glass thereof a wire netting unless wire glass is used.

FLOOR-LIGHTS.

All openings in floors for transmission of light to floors below shall be covered over with floor lights constructed of metal frames and bars, the glass in case to be less than three-quarters of an inch in thickness.

In any glass in same measures more than sixteen square inches the glass shall be provided with strong wire netting under same.

SECTION 95.—UNPROTECTED OPENINGS IN FLOORS AND ROOFS.

No opening in any floor or roof shall be without a solid covering of an inclosure, as provided in this Code, to prevent the communication of fire from story to story, excepting as otherwise provided in this Code for certain staircase openings which are not required to be inclosed.

SECTION 96.—PROTECTION OF PERSONS EMPLOYED ON BUILDINGS.—OUTSIDE SCAFFOLDS.

Whenever outside scaffolds are required to carry on the construction of buildings over eighty-five feet in height, whether the same be constructed by poles or thrust-out scaffolds, there shall be erected on its outer edge and ends an inclosure of wire netting of not over two-inch mesh, inch thick, placed not over one and one-half inches apart, well secured to uprights not less than two inches by four inches, fastened to planks or timbers, and resting on put-logs or thrust-outs. The said inclosure shall be carried up at least five feet in advance above the level on which the workmen employed on said front are working. The said thrust-outs shall be not less than three by ten of spruce or yellow pine, and to be doubled or tripled, as may be required for the load to be carried, to be thoroughly braced and secured; or said timbers can be in one stick if proportioned to the load. The flooring on thrust-outs and put-logs shall be tightly constructed with plank. This said floor and inclosure shall not be removed until a like floor and inclosure are already prepared and in position on the story above.

WINDOW OPENINGS INCLOSED.

In all buildings over eighty-five feet in height, during construction or alteration, the windows on each floor above the second shall be properly inclosed as soon as the story is built.

PROTECTION OF ADJOINING SKYLIGHTS AND ROOFS.

If the walls of such buildings are carried up two stories or more above the roofs of adjoining buildings, proper means shall be provided and used for the protection of skylights and roofs of such adjoining buildings.

The protection over skylights shall be of stout wire netting not over one-inch mesh on stout timbers and properly secured.

SHEDS AND INCLOSURES SUBJECT TO INSPECTION.

All such sheds and inclosures are to be subject to the inspection and approval of the Inspector of Buildings.

WHEN ADJOINING OWNER REFUSES PERMISSION TO PROTECT ROOFS AND SKYLIGHTS.

Should said adjoining owner, tenant or lessee refuse to grant permission to have said roofs and skylights so protected, such refusal by said owner, tenant or lessee shall relieve the owner of the building in course of construction from any responsibility for damage done to persons or property on or within the premises affected.

INSPECTOR OF BUILDINGS MAY SERVE NOTICE.

Should such inclosure or protection not be so erected, the Inspector of Buildings shall issue a notice to be served personally upon the owner, or authorized agent, constructing or repairing such buildings, or the owner, tenant or lessee of adjoining premises requiring such inclosure or protection, as provided in this section, specifying the manner in which same shall be erected.

INSPECTOR OF BUILDINGS EMPOWERED TO ERECT INCLOSURES AND PROTECTION.

And if such inclosures or protections are not erected, strenegthened or modified as provided in such notice wtihin three days after the service thereof, the said Inspector of Buildings shall have full power and authority to cause such inclosure to be erected on the fronts and roofs and the skylights protected.

And all expenses connected with same may become a lien on the property in interest so inclosed and protected, and which lien may be created and enforced in the same manner as now provided for in Section 154 of this Code.

SECTION 97.—PROTECTION OF PERSONS EMPLOYED ON BUILDINGS.

All contractors and owners, when constructing buildings where the floors or filling-in between the floor beams thereof are of fireproof material or brickwork, shall complete the flooring or filling-in as the building progresses, to not les sthan within three tiers of beams below that on which the iron work is being erected.

If such buildings do not require filling-in betwen the beams of floors with brick or other fireproof material, all contractors for carpenter work, or the owners of the buildings in the course of construction, shall lay the under flooring thereof on each story as the builing progresses, to not less than within two stories below the one to which such building has been erected. When double floors are not to be used, such contractor, or the owner, shall keep planking over the floor two stories below the story where the work is being performed.

If the floor beams are of iron or steel, the contractor for the iron or steel work of buildings in course of construction, or the owners of such buildings, shall thoroughly plank over the entire tier of iron or steel beams on which the structural iron or steel work is being erected, except such spaces as may be reasonably required for the proper construction of such iron or steel work, and for the raising or lowering of materials to be used in the construction of such buildings; or such spaces as may be descignated by the plans and specifications for stairways and elevator shafts.

SECTION 98.—INFLAMMABLES.

Buildings hereafter erected, designed or used for the storage or sale of petroleum, benzine, camphene, spirit gas, burning fluid, or spirits of turpentine, exceeding in quantity five (5) barrels of fifty (50) gallons each, or in which compounding or refining of petroleum or inflammables of like nature is done, shall be located at least one hundred (100) feet from any other building an dshall be

constructed as follows:

The walls shall not be less than sixteen in ches thick nor more than sixteen (16) feet high; the floors shall be made of fireproof paving or concrete upon the ground, which shall be at least five (5) feet below the street grade; the roof shall be of metal or other fireproof material and have fire walls extending eighteen (18) inches high, all around, no less than twelve inches thick, and have copings of incombustible material. All doors and windows shall be provided wtih fireproof shutters; metal covered scuttles or automatic ventilating skylights may be used in lieu of windows.

DRY CLEANING WORKS.

(a) STORAGE.—All dry cleaning works hereafter erected and all buildings hereafter converted to such use in which gasoline, benzine or other inflammable fluids are used for cleaning purposes, shall have metal storage tanks placed in underground watertight brick pits; said pits shall be at least four (4) feet large in diameter and extend at least three (3) feet above the top of the tanks (see sections following), and, except as modified, shall be located the following distance from any building or lot line:

If the capacity of the tank or tanks is two hundred and fifty (250) gallons or less, twenty-five (25) feet; if greater than two hundred and fifty (250) feet and not more than one thousand (1,000) gallons, fifty (50) feet; if greater than one thousand (1,000) and not more than fifteen hundred (1,500) gallons, seventy-five (75) feet; if greater than fifteen hundred (1,500) gallons, one hundred (100) feet. If the capacity of each individual storage tank does not exceed two hundred and fifty (250) gallons, and their enclosing pits are at least six (6) feet distant from each other, the above distances may be reduced by one-third (1-3), provided that no such tank shall be located at a less distance than twenty-five (25) feet from any other building.

(b) THE WASHING AND DYEING ROOMS —The washing, assorting, preparation, still and drying rooms may be contained in one building, provided the same is not over one (1) story in height and is constructed as hereinafter prescribed. Such buildnigs shall be located the same distance from any other building as prescribed for tanks in (a), and shall never be nearer than one-half (½) the given distances to the storage tanks, provided that dry cleaning establishments consisting of on eor more buildings in each of which building not more than two hundred and fifty (250) gallons of gasoline, benzine or other inflammable fluids are used, may be located within twelve (12) feet from a building ocntaining teh common, assorting, preparation and drying rooms.

(c) CONSTRUCTION OF WASHING AND DRYING ROOMS.—All buildings containing washing, still and drying rooms in which inflammable fluids are used shall be constructed as prescribed in preceding section, except that the exterior and all bearing walls shall not be less than twelve inches thick and inner partitions or non-bearing division wall eight inches thick, and and story height not less than eleven (11) feet in the clear. The floor level shall be at least six (6) inches below the outer grade. The interior of the building shall be diveded into compartments separated by brick walls. The assorting, preparation and drying rooms shall be vestibuled from each other and from the still, machine and hand washing rooms and other rooms where inflammable fluids are used in the process of cleaning.

(d) WASHING ROOMS.—Rooms containing washing machines or stills or cans or tubs for hand washing shall be divided into compartments by brick walls which shall be carried above the roof, be properly coped as prescribed in preceding section, and each of said compartments shall be proportioned for the use of not more than one hundred (100) gallons of inflammable fluid at any one time in any machine or machines, stills, cans or tubs placed therein. The interior of each such compartment shall be provided on at least three (3) sides with a trench constructed next to the walls, and not more than eighteen (18) inches therefrom, which trench shall be at least one (1) foot deep and of sufficient width to contain at least twice the number of gallons of fluid used therein, buot no such trench shall drain into any other compartment.

No compartment containing washing machines or stills shal lopen into each other, but each shall be provided with a door opening to the outer air or a common vestibule, or such door may open into the hand-washing room, provided that such room is vestibuled from all other compartments in such buildings as prescribed in sub-section (c).

(e) LIGHTING.—No artificial light, except incandescent eiectric, shall be used in such compartment. Automatic, ventilated metal lights shall be used to light every room or compartment in such building, but the preparation or hand washing rooms, or any rooms where persons are employed, shall have additional windows provided with fire shutters, but any windows placed in the still, mahcine washing and drying rooms shall be of wired glass in fixed metal sash and frames. All doors throughout said building shall be standard self-closing automatic fire doors.

(f) VENTILATION.—Each room or compartment shall be provided with a separate and efficent system of ventilation either by natural or artificial means so designed that in the event of fire each room or compartment or vestibule will be completely shut off from any other room or compartment except through fire doors.

GASOLINE AND KEROSENE OIL ENGINES FOR POWER.

Gasoline and kerosene oil engines for power shall rest on solid brick and stone foundations built on the ground. No such engine shall be located above the ground floor of any building.

GASOLINE OR KEROSENE OIL STORAGE TANKS.

All tanks for the storage of gasoline or kerosene oil for power engines or automobile feeds in garages or factories shall not contain more than two hundred and fifty (250) gallons and be located underground at a safe distance fro many building (not nearer than six (6) feet, if such building is of brick, and sixteen (16) feet if of frame construction) the top of such tank shall be below the level of the base of the engine or pump and not less than three (3) feet underground, and be solidly enclosed wtih earth; the location of such tanks enclosed in vaults shall be subject to such of the regulations herein relating to vaults as are not inconsistent herewith; provided that such vautls shall be unattached,

well ventilated through separate flues or pipes, and have iron manholes and covers for clearance of tanks. See preceding section.

When tanks of a larger storage capacity than two hundred and fifty (250) gallons are used, their location in reference to each other and any building or lot line shall be regulated as prescribed in sub-sections (a) and (b) of preceding section.

No such storage tank shall be located under any public sidewalk, street, alley, courtway or lawn.

GASOLINE AND OIL SUPPLY PIPES.

All pipes leading from said storage tanks shall be coupled together at every joint with airtight couplings, metal to metal. Supply pipes shall incline toward storage tanks. The filling of storage tanks with gasoline and kerosene oil shall be done by daylight only, by competent persons, and no artificial light shall be used about the place of filling, and all pipe attachments between wagons for hauling gasoline and kerosene oil, or tanks therefor, shall be fitted with tight screw connections; vent pipes with screw caps must be attached to such tanks; vent pipes shall be open during the process of filling.

VALVES.

Valves in supply pipes to engines between the engine and tank and near such tank, shall be provided; valves in supply pipes shall be closed when filling the tank and when engine is shut down for the night.

PUMPS.

Gasoline and kerosene oil shall be supplied to engines and automobile tanks by approved pumps provided with cut-off valves, overflow and by-pass so arranged that all gasoline and kerosene oil shall drain back to the storage tank so as to leave the building entirely free from gasoline or kerosene oil when the engine is not in operation. All cut-off valves for this purpose shall be outside of the building.

SECTION 99—PERMITS AND INSPECTION.

No change shall be made in the arrangement or construction of engines operated by gasoline or kerosene ail without notiec to and approval by the Inspector. Notice of intention to introduce gasoline or kerosene oil engines into buildings shall be given to the Inspector, who will make, or cause to be made, an inspection of the proposed location, and if satisfactory and in accordance with the foregoing, will issue a permit therefor. The dimensions of storage tanks for gasoline and kerosene oil or rooms in which such articles are worked or stored, shal lbe determined by the Inspector in accordance with the rovisions of this Code when not otherwise provided for in the ordinances of the city relating to explosives.

SECTION 100.—ENGINE AND FEED ENCLOSURES.

All rooms enclosing automobile feeds in garages and work shops and engines operated by gasoline or kerosene oil, or any other inflammable fluid, shall be constructed of brick, stone, iron or other incombustible material, and the ceilings, doors and shutters thereof shall be covered with metal. The floors of all such rooms, and all rooms in which automobiles containing live tanks of inflammable fluids, are housed or sheltered, shall be provided with watertight concrete floors, scuppered to a depth of at least six (6) inches.

SECTION 101.—MISCELLANEOUS BUILDINGS.—GRAIN ELEVATORS AND COAL POCKETS.

Nothing in this Code shall be so construed as to apply to or prevent the erection of what are known as grain elevators, as usually constructed, within the limits of railroad terminal yards, provided they are not erected within one hundred feet of a public street or private property.

Nor to apply to or prevent the erection of coal pockets or coal elevators, as usually constructed, under similar conditions, including location.

ICE HOUSES.

Buildings to be used exclusively for the storage of ice may be erected in isolated localities and constructed of such materials and under such conditions as the Inspector of Buildings may prescribe.

PIER SHEDS.

Sheds or buildnigs on piers or wharves or on the water front shall be of iron or other non-inflammable materials.

LUMBER YARDS.

It shall be unlawful to pile lumber in any yard to a greater height than thirty (30) feet above the grade of the adjoining street or alley, and when piles of lumber are situated adjacent to each other the space between the piles shall be kept entirely free of refuse, chips or blocks, and equipped wtih standard fire hydrants, spaced at regular distances, when deemed neieccasry by the Chief of the Fire Department.

When lumber yards front on streets, a proper and suitable fence shall be erected and maintained along the street line, such fences to be provided with gates or other suitable openings at intervals of at least one hundred (100) feet, to allow of easy access to lumber yard by the Fire Department should the necessihy occur.

No lumber shall be piled in the open or in sheds for the purpose of storage, seasoning or drying within ten feet of any building then standing on adjoining property nor nearer to such building than one-half the height of the lumber so piled, except when such building is provided with dead brick walls next adjacent to said lumber piles or a solid brick fire wall shall be erected between such lumber piles and such adjoining property, in which case, however, lumber shall not be piled higher than six (6) feet below the top of such wall or fire wall, nor within twenty-five (25) feet of a planing mill or woodworking factory in which power is generated by gas engine or electric motors, unless such building is provided with a solid brick fire wall on the side adjacent to the lumber pile, and when such is the case no lumber shall be higher than six feet below the coping of said fire wall, nor within twenty feet of any public building, hotel, dwelling or tenement then standing upon adjoining premises. No lumber shall be piled within three feet of the line of demarcation between the premises on which such lumber is or is to be piled and contiguous premises.

SECTION 101-A—EXHIBITION BUILDINGS.

Buildings for fair and exhibition purposes, towers for observation purposes and structures for similar uses, whether temporary or permanent in character, shall be constructed in such manner and under such conditions as the Inspector of Buildings may prescribe.

SECTION 102.—SMOKE HOUSES.

All smoke houses shall be of fireproof construction, with brick walls, iron doors and brick or metal roof.

An iron guard shall be placed over and not less than three feet above the fire, and the hanging rails shall be of iron and an iron grating shall be placed under the first row of hanging rails and be not less than eight feet above the floor of the firepit.

The walls of all smoke houses shall be built at least three feet higher than the roof of the building in which they are located, and shall be not less than twelve inches in thickness and be coped with stone or its equivalent.

SECTION 103.—HEATING APPARATUS, DRYING ROOMS, GAS AND WATER PIPES—HEATING FURNACES AND BOILERS.

A brick-set boiler shall not be placed on any wood or combustible floor or beams.

Wood or combustible floors and beams under and not less than three feet in front and one foot on the sides of all portable boilers shall be protected by a brick foundation of three courses of brickwork, well laid in mortar on sheet iron; the middle course of brickwork to be laid crosswise, and with ventilating spaces within or between the bricks of said middle course; the said sheet iron shall extend at least twenty-four inches outside of the foundation of the sides and front. A cast-iron ash pan of suitable thickness shall be placed under the boiler and shall have aflange turned up in front and on the sides four inches high; said pan shall be in width not less than the base of the boiler, and shall extend at least two feet in front of it. If a boiler is supported on a cast-iron base with a bottom of the required thickness for an ash pan, and is placed on bearing lines of brick in the same manner as specified for an ash pan, then an ash pan shall be placed in front of the said base and shall not be required to extend under it.

All lath and plaster and wood ceilings and beams over and to a distance of not less than four feet in front of all boilers, shall be shielded with metal. Where smoot ceilings are to be protected the metal to be applied shall leave an air space of not less than one-quarter of an inch between the metal and ceiling. Wher ebeams are exposed the metal to be applied shall follow the contour of the beams. The distance from the top of the boiler to said shield shall be not less than twelve inches, and the smoke pipe leading therefrom shall be not less than twenty-four inches.

No combustible partition shall be within four feet of the sides andback and six feet from the front of any boiler unless said partition shall be cobered with metala to the height of at least three feet above the floor, and shall extend from the end or back of the boilre to at least five feet in front of it; then the distance shall be not less than two feet from the sides and five feet from the front of the boiler.

All brick hot-air furnaces shall have two covers, with an air space of at least four inches between them; the inner cover of the hot-air chamber shall be either a brick arch or two courses of brick laid on galvanized iron or tin, supported on iron bars; the outside cover, which is the top of the furnace, shall be made of brick or metal supported on iron bars, and so constructed as to be perfectly tight, and shall be not less than twelve inches below any combustible ceiling ceiling or floor beams.

The walls of the furnace shall be built hollow in the following manner: One inner and one outer wall, each four inches in thickness, properly bonded together with an air space of not less than three inches between them.

Furnaces shall be built at least twelve inches from all woodwork.

The cold-air boxes of all heating apparatus shall be made of metal, brick or other incombustible material.

All portable hot-air furnaces shall be placed at least two feet from any wood or combustible partition or ceiling, unless the partitions and ceilings are properly protected by a suspended metal shield, when the distance shall be not less than one foot.

Wood floors under all portable furnaces shall be protected by three courses of brickwork, well laid in mortar on galvanized sheet iron, the middle course to be laid crosswise, and with ventilating spaces within or between the bricks of said middle course. Said brickwork shall extend at least two feet beyond the furnace in front of the ash pan.

SECTION 104.—REGISTERS.

Registers located over a brick furnace shall be supported by a brick shaf built up from the cover of the hot-air chamber; said shaft shall be lined with ametal pipe, and all wood beams shall be trimmed away not less than four inches from it.

Where a register is placed on any woodwork ni connection with a metal pipe or duct the end of the said pipe or duct shall be flanged over on the woodwork under it.

All registres for hot-air furnaces placed in any woodwork or combustible floors shall have stone or iron borders firmly set in plaster of paris or gauged mortar.

All register boxes shall be made of tin plate or galvanized iron with a flange on the top to fit the groove in the frame, the register to rest upon the same; there shall be an open space of two inches on all sides of the register box, extending from the under side of the border to and through the ceiling below. The said opening shall be fitted with a tight tin or galvanized iron casing, the upper end of which shall be turned under the frame.

When a register box is placed in the floor over a portable furnace the open space on all sides of the register box shall be not less than three (3) inches.

When only one register is connected with a furnace said register shall have no valve or slats, and where two or more registers are connected to a furnace at least one of them shall have no valve or slats.

SECTION 105.—DRYING ROOMS.

All walls, ceilings and partitions inclosnig drying rooms shall be made of fireproof material.

SECTION 106.—RANGES AND STOVES.

Where a kitchen range is placed from twelve to six inches from a wood stud partition the said partition shall be shielded with metal from the floor to the height of not less than three feet higher than the range; if the range is within six inches of the partition, then the studs shall be cut away and framed three feet higher and one

foot wider than the range, and filled in to the face of the said stud partition with brick or fireproof blocks and plastered thereon.

All ranges on wood or combustible floors and beams that are nt supported on legs and have ash pans three inches or more above their base shall be set on suitable brick foundations, consisting of not more than two courses of brick well laid in mrtar on galvanized sheet iron, except small ranges, such as are used in apartment houses, that have ash pans three inches or more above their base, shall be placed on at least one course of brickwork on galvanized sheet iron.

No range shall be placed against a furred wall.

All lath and plaster or wood ceilings over all large ranges and ranges in hotels and restaurants shall be gurded by metal hoods placed at least nine inches below the ceiling.

A ventilating pipe connected with a hood over a range shall be an individual pipe, havnig no connection with any other pipe and shall be covered with one inch of asbestos on wire mesh and shall not be less than nine inches from wood or lath and plaster work, which shall be shielded with metal. The pipe shall go either outside of the building and discharge at least four feet above the roof or be connected with a suitable brick flue lined with burnt clay or heavy iron pipe, which shall be used exclusively for the ventilating pipe of the range.

Laundry stoves on wood or combustible floors shall have a course of bricks, laid n metal, on the floor under and extended twenty-four inches on all sides of them.

All stoves for heating purposes shall be properly supported on iron legs resting on the floor three feet from all lath and plaster or woodwork; if the lath and plaster or woodwork is properly protected by a metal shield, then the distance shall be not less than eighteen inches.

A metal shield shall be placed under and twelve inches in front of the ash pan of all stoves that are placed on wood floors.

All low gas stoves shall be placed on iron stands or the burners shall be at least six inches above the base of the stoves, and metal guard plates placed four inches below the burners, and all woodwork under them shall be covered with metal. Gas connections to such stoves shall be made by metal pipes unless there is no valve on the gas stove.

All receptacles for ashes shall be of galvanized iron, brick or other incombustible material.

SECTION 107.—NOTICE AS TO HEATING APPARATUS.

In cases where hot water, steam or hot air or other heating appliances or furnaces are hereafter placed in any building or flues or fireplaces are changed or enlarged due notice shall first be given to the Inspector of Buildings by the person or persons placing the said furnace or furnaces in said building or by the contractor or inspector of said work.

SECTION 108.—GAS AND WATER PIPES.

Every building, other than a private dwelling house, hereafter erected, and all factories, hotels, churches, theatres, school houses and other buildings of a public character now erected in which gas or steam is used for lighting or heating, shall have the supply pipes leading from the street mains provided each with a stopcock placed in the sidewalk at or near the curb, and so arranged as to allow of shutting off at that point.

No gas, water or other pipes which may be introduced into any building shall be let into wood beams unless the same be placed within thirty-six inches of the end of the beams;

And in no building shall the said pipes be let into any beam more than two inches of its depth.

GAS BRACKETS.

All gas brackets shall be placed at least three feet below any ceiling or woodwork, unless the same is properly protected by a shield; in which case the distance shall be not less than eighteen inches.

No swinging or folding gas bracket shall be placed against or near any stud partition or woodwork; and all swniging gas brackets shall be provided with stops to prevent them from swinging against woodwork.

No gas brackets on any lath and plaster partition or woodwork shall be less than five inches in length, measured from the burner to the plaster surface of woodwork.

Gaslights placed near window curtains or any other combustible material shall be guarded by globes or wire cages.

SECTION 109.—ROOFS, LEADERS, CORNICES, BULKHEADS, SCUTTLES AND TANKS—MANSARD ROOFS.

If a mansard or other roof of like character, having a pitch of over sixty degrees, be placed on any building, except a wood building, or a dwelling house not exceeding three stories nor more than forty feet in height, it shall be constructed of iron rafters and lathed with iron or steel on the inside and plastered or filled in with fireproof material not less than three inches thick, and covered with metal, slate or tile.

No false mansard or other similar roof construction for increasing the apparent height of abuilding, but having no full story behind the same, shall be placed on any building to a greater height than five feet above the cornice or the highest point of the roof beams.

SECTION 110.—CORNICES AND GUTTERS.

On all buildings hereafter erected within the fire limits, the exterior of cornices, inclusive of those on show windows, and gutters, shall be on some fireproof material.

All fireproof cornices shall be well secured to the walls with iron anchors, nidependent of any woodwork.

No cornice, not including pediments, shall extend more than five feet above the highest point of the roof beams of any building.

WALLS IN RELATION TO ROOF PLANKING AND CORNICES.

In all cases the walls shall be carried up to the planking of the roof.

Where the cornice projects above the roof the walls shall be carried up to the top of the cornice.

The party walls shall in all cases extend above the planking of the cornice and be coped.

UNSAFE CORNICES.

All exterior wood cornices within fire limits that may now be or hereafter become unsafe or rotten shall be taken down.

And, if replaced, shall be constructed of some fireproof material.

CORNICES DAMAGED BY FIRE.

All exterior cornices of wood or gutters within the fire limits that may hereafter be damaged by fire to the extent of one-half shall be taken down, and, if replaced, shall be constructed of some fireproof material.

But if not damaged to the extent of one-half the same may be repaired with the same kind of material of which they are originally constructed.

SECTION 111.—BULKHEADS ON ROOF AN SCUTTLES.

Bulkheads used as inclosures for tanks and elevators and coverings for the machinery of elevators and all other bulkheads, including the bulkheads of dwelling houses, on buildings not more than four stories in height hereafter erected or altered, may be construced of hollow fireproof blocks, or of wood, covered with not less than two inches of fireproof material, or filled in the thickness of the studding with such material, and covered on all outside surfaces with metal, including both surfaces and edges of doors. On fireproof buildings the bulkheads and inclosures on roofs shall be constructed of fireproof materials only.

All buildings shall have scuttles or bulkheads, with ladders or stairs leading thereto, and easily accessible to all occupants.

No scuttle shall be less in size than two by three feet.

No staging or stand shall be constructed or occupied upon the roof of any building without first obtaining the approval of the Inspector of Buildings.

SECTION 112.—TANKS.

Tanks containing more than five hundred gallons of water or other fluid hereafter placed in any story, or on the roof or above the roof of any building now or hereafter erected, shall be supported on iron or steel beams of sufficient strength to safely carry the same.

And the beams shall rest at both their ends on brick walls or on iron or steel girders or iron or steel columns or piers of masonry.

Underneath any said water tank or on the side near the bottom of the same there shall be a short pipe or outlet, not less than four inches in diameter, fitted with a suitable valve having a lever or wheel handle to same, to discharge the weight of the fluid contents from the tank, in case of necessity, unless tank water is to supply automatic sprinklers.

Such tank shall be placed, where practicable, at one corner of a building, and shall not be placed over nor near a line of stairs, unless the stairs are inclosed with brick walls of sufficient strength to support the added load of the tank and contents.

Cover on top of water tanks placed on roofs, if of wood, shall be covered with tin.

SECTION 113.—ROOFING AND LEADERS WITHIN THE FIRE LIMITS.

The planking and sheathing of the roofs of buildings shall not in any case be extended across the side or party wall thereof.

Every building and the tops and sides of every dormer window thereon shall be covered and roofed with brick, tile, slate, tin, copper or iron, or such other incombustible roofing as the Inspector of Buildings, under his certificate, may authorize.

And the outside of the frame of every dormer window hereafter placed upon any building shall be made of some fireproof material.

No wood or other building within the fire limits which shall require roofing shall be roofed wtih any other roofing or covered except as aforesaid, including the tops and sides of dormer windows.

Nothing in this section shall be construed to prohibit the repairing of any shingle roof within or without the fire limits, providing the building is not altered in height, but this shall not be construed to permit the renewal of a shingle roof.

SECTION 114.—LEADERS FROM ROOFS.

All buildings shal lbe kept provided with proper metallic leaders for conducting water from the roofs in such manner as shall protect the walls and foundations of said buildings from injury.

In no case shall the water from the said leaders be allowed to flow upon the sidewalk, but the same shall be conducted by pipe or pipes to the sewer.

If there be no sewer in the street upon which such buildings front, then the water from said leader shall be conducted by proper pipe or pipes below the surface of the sidewalk to the street gutter.

SECTION 115.—ELEVATORS, HOISTWAYS AND DUMBWAITERS.

Elevators and Hoistways.—In any building in which there shall be any hoistway or elevator or wellhole not inclosed in walls constructed of brick or other fireproof material and provided with fireproof doors, the openings thereof through and upon each floor of said building shall be provided and protected by a substantial guard or gate and with such good and sufficient trap doors as may be directed and approved by the Inspector of buildings; and when in the opinion of the Inspector of Buildings automatic trap doors are required to the floor openings of any uninclosed freight elevator, the same shall be constructed so as to form a substantial floor surface when closed and so arranged as to open and close by the action of the elevator in its passage either ascending or descending. The said Inspector of Buildings shall have exclusive power and authority to require the openings or hoistways, shafts, elevators and wellholes in buildnigs to be inclosed or secured by trap doors, guards or gates and railings. Such guards or gates shall be kept closed at al ltimes, except when in actual use, and the trap doors shall be closed at the close of business each day by the occupant or occupants of the building having the use or control of the same.

ELEVATOR INCLOSURES.

All elevators hereafter placed in any building, except such fireproof buildings as have been or may hereafter be erected shall be inclosed in suitable walls of brick, or with a suitable framework of iron and burnt clay filling, or of such other fireproof material and form of construction as may be approved by the Inspector of Buildings, except that the inclosure walls in non-fireproof buildings, used as warehouses, stores or factories shall be of brick. If the inclosure walls are of

brick, laid in cement mortar, and not used as bearing walls, they may be eight inches in thickness for not more than fifty feet of their uppermost height, and increasing in thickness four inches for each lower fifty feet portion or part thereof. Said walls or construction shall extend through and at least three feet above the roof. All openings in the said walls shall be provided with fireproof shutters or fireproof doors made solid for three feet above the floor level, except that the doors used for openings in buildings intended for the occupancy of one family may be of wood covered on the inner surface and edges with metal, not including the openings in the cellar nor above the roof in any such shaft walls. The roofs over all inclused elevators shall be made of fireproof materials, with a skylight at least three-fourths the area of the shaft, made of glass, set in iron frames. When the shaft does not extend to the ground, the lower end shall be inclosced in fireproof material.

DUMBWAITER SHAFTS.

All dumbwaiter shafts, except such as do not extend more than three stories above the cellar or basement in dwelling houses shall be inclosed in suitable walls of brick or burnt clay blocks, set in iron frames of proper strength or fireproof blocks strengthened with metal dowels, or such other fireproof material and form of construction as may be approved by the Inspector of Buildings. Said walls or construction shall extend at least three feet above the roof and be covered with a skylight at least three-fourths the erea of the shaft, made with metal frames and glazed. All openings in the inclosure walls or construction shall be provided with self-closing fireproof doors. When the shaft does not extend to the floor level of the lowest story the bottom of the shaft shall be constructed of fireproof material.

ELEVATORS IN STAIRCASE INCLOSURES.

Open grillwork inclosures for passenger elevators, not extending below the level of the first floor may be erected in staircase inclosures in buildings where the entire space occupied by the stairs and elevator is inclosed in brick or stone walls.

ELEVATORS IN EXISTING HOTELS.

In every non-fireproof building, used or occupied as a hotel, in which trere is an elevator not inclosed in fireproof shafts, such elevator shall be inclosed in suitable walls, constructed and arranged as in this Code required for elevator shafts.

SCREEN UNDER ELEVATOR SHEAVES.

Immediately under the sheaves at the top of every elevator shaft in any building there shall be provided and placed a substantial grating or screen of iron or steel, of such construction as may be approved by the Inspector of Buildnigs.

SECTION 116.—FIRE APPLIANCES, FIRE ESCAPES AND FIREPROOF SHUTTERS AND DOORS.—STANDPIPES.

In every existing building, excepting dwellings exceeding sixty-five and not over one hundred feet in height, unless already provided with a three-inch or larger standpipe, and in all buildings hereafter erected exceeding sixty-five and not exceeding one hundred feet in height, there shall be provided a vertical standpipe of not less than four inches in diameter.

In every existing building exceeding one hundred feet in height, unless already provided with a four-inch or larger standpipe, and in all buildings hereafter erected exceeding one hundred feet in height, there shall be provided a vertical standpipe of not less than six inches in diameter.

These standpipes shall be of wrought iron or steel galvanized, and, together with fittings and connections, shall be of such strength as to safely withstand at least three hundred pounds water pressure to the square inch when installed and ready for service; also to stand such a test wtihout leaking at joints, valves or fittings.

Standpipes shall be located within fireproof stairway inclosures where the latter are of such construction, and as near stairways as possible where they are not so inclosed.

Where more than one standpipe is required in a building they shall be connected at their bases by pipes of size equal to that of largest standpipes, so that water from any source will supply all the standpipes.

In buildings exceeding one hundred feet deep fronting on two or more streets there shall be a standpipe at each end of building, and in large area buildnigs there shall be one standpipe at each stairway or within each stairway inclosure.

Standpipes shall extend from the cellar to and through the roof, with a hose connection located from four to six feet above floor level fitted with approved straightway composition gate valve in each story, including cellar, and a hose connection provided above the roof with the valve controling latter, located in the standpipe under the roof and arranged to be operated both from above and below the roof. A suitable three-quarter inch drain pipe and valve shall be provided under the roof for each roof connection.

Hose sufficient to reach to all parts of the floor shall be attached to each outlet in the building, and hose for roof hydrant may be placed on rack in top floor near the scuttle leading to the roof. Hose shall be two and one-half or two and five-eights inches in diameter, in fifty-foot lengths, and provided with standard couplings at each end, all couplings to be of sam ehose threads as that in use by the local Fire Department.

Hose to be approved linen cotton rubber lined or rubber made under specifications recommended by the National Board of Fire Underwriters.

Each line of hose shall be provided wtih washers at both ends, and be fitted with play pipe or nozzle of Underwriter pattern, having handles at the base and with discharge outlet not less than three-quarter inch in diameter. One spanner to be located at each hose connection throughout the building.

All standpipes shall be provided with a Siamese steamer connection, located on the outside of the building about one foot above the curb level, and where a building fronts on two or more streets a connection to be provided on each street front. Inlet pipe from steamer connection to standpipe to be not less than the diameter of the largest standpipe. The threads on the Siamese connection shall be uniform with that used by the local Fire Department. Siamese steamer connections shall be provided with check valves in the "Y," and substantial caps provided to protect thread on the connection. The steamer connection fitting should be adjusted looking down at an angle of forty-five degrees. A suitable iron plate with raised letters shall be secured to the wall near steamer connection reading "To Standpipes."

In each connecting pipe just inside of the building in a horizontal section shall be placed a straightway check valve, but not a gate valve. A drip pipe with valve to same shall be placed between said check valve and steamer connection to properly drain this section to prevent freezing.

In addition to the provision made for steam connections to standpipes the water supply may be from city water, where pressure is sufficient, automatic fire pump of five hundred gallons or more capacity per minute, elevated tank or steel pressure tank of not less than five thousand gallons capacity.

In all buildings coming under these regulations as to height which are occupied for living or sleeping purposes, such as hotels, lodging houses, hospitals and aswlums, the standpipe system must have at least one of the approved automatic supplies before described.

Where a standpipe is connected to a tank there shall be a straightway check valve in a horizontal section of pipe between the first hose outlet in connecting pipe and tank, and said tank must be filled by a separate pipe, and not through the standpipe.

Where pumps constituting a supply to standpipes are located in the lowest story of a building they shall be placed not less than two feet above the floor level, and boilers upon which pumps depend for steam shall be arranged so that flooding of fires under same will be impossible.

In every building exceeding one hundred feet in height at least one passenger elevator shall be kept in readiness for immediate use by the Fire Department during all hours of the night and day, including holidays and Sundays.

SECTION 117.—FIRE ESCAPES.

Every apartment house, tenement house or dwelling house occupied by or built to be occupied by three or more families.

And every building already erected, or that may hereafter be erected, more than three stories in height, occupied and used as a hotel, apartment hotel or lodging house, and every boarding house, having more than fifteen sleeping rooms above the basement story.

And every factory, mill, manufactory or workshop, hospital, asylum or institution for the care or treatment of individuals.

And every building three stories and over in height used or occupied as astore or workroom.

And every building, in whole or in part, occupied or used as a school or place of instruction or assembly.

And every office building four stories or more in height.

Shall be provided with such good and sufficient fire-escapes, stairways, or other means of egress in case of fire, as shall be directed by the Inspector of Buildings.

The owner or owners of any building upon which a fire escape is erected shall keep the same in good repair and properly painted.

Fire escapes on the outside of buildings shall consist of open iron balconies and stairways.

Fire escapes may project into the public highway to a distance not greater than four feet beyond the building line.

The stairways shall be placed at an angle of not more than sixty degrees, with steps not less than six inches in width and twenty in length, and with a rise of not more than nine inches.

The balcony on the top floor, except in case of afront fire escape, shall be provided with a gooseneck ladder leading from said balcony to and above the roof.

BALCONIES.

The balconies shall be not less than three feet in width, and placed where directed by the Inspector of Buildings at each story above the ground floor.

They shall be below and not more than one foot below the window sills and extend in front of and not less than nine inches beyond each window.

There shall be a landing not less than twenty-four inches square at the head and foot of each stairway.

The stairway opening on each platform shall be of a size sufficient to provide clear headway.

FLOORS OF BALCONIES.

The floors of balconies shall be of wrought iron or steel slats not less than one and one-half inches by three-eighths of an inch, placed not more than one and one-quarter inches apart, and well secured and riveted to iron battens one and a half inches by three-eighths of an inch, not over three feet apart, and riveted at the intersections. The openings for stairways in all balconies shall be not less than twenty-one inches wide and thirty-six inches long, and such openings shall have no covers of any kind.

The platforms or balconies shall be constructed and erected to safely sustain in all their parts a safe load at a ratio of four to one of not less than eighty pounds per square foot of surface.

RAILINGS.

The outside top rail shall extend around the entire length of the platform, and in all cases shall go through the wall at each end aud be properly secured by nuts and four-inch square washers at least three-eighths of an inch thick, and no top rail shall be connected at angles by cast iron. The top rail of balconies shall be one and three-quarter inches by one-half inch of wrought iron, or one and a half inch angle iron one-quarter inch thick. The bottom rails shall be one and one-half inches by three-eighths of an inch wrought iron or steel, or one and a half inch angle iron, one-quarter inch thick, well leaded into the wall. The standards or filling-in bars shall be not less than one-half inch round or square wrought iron or steel, well riveted to the top and bottom rails and platform frame. Such standards of filling-in bars shall be securely braced to outside brackets at suitable intervals, and shall be placed not more than six inches from centers; the height of railings shall in no case be less than two feet nine inches.

STAIRWAYS.

The stairways shall be constructed and erected to fully sustain in all their parts a safe load at a ratio of four to one of not less than ne hundred pounds per step, with the exception of the tread, which must safely sustain at said ratio a load of two hundred pounds. The treads shall be flat, open treads not less than six inches wide and with a rise of not more than nine inches. The stairs shall be not less than twenty

inches wide. The strings shall be not less than three-inch channels of iron or steel, or other shape equally strong, and shall rest upon and be fastened to a bracket which shall be fastened through the wall as hereinafter provided. The strings shall be securely fastened to the balcony at the top, and the steps in all cases shall be double-riveted or bolted to the strings. The stairs shall have three-quarter inch hand rails of wrought iron, well braced.

BRACKETS.

The brackets shall be not less than one-half inch by one and three-quarter inches wrought iron placed edgewise, or one and three-quarter inch angle iron, one-quarter inch thick, well braced; they shall be not more than four feet apart, and shall be braced by means of not less than three-quarters of an inch square wrought iron, and shall extend two-thirds of the width of the respective balconies or brackets. The brackets shall go through the wall and be turned down three inches, or be properly secured by nuts and four-inch square washers at least three-eighths of an inch thick.

On new buildings the brackets shall be set as the walls are being built.

When brackets are put on buildings already erected the part going through the wall shall be not less than one inch in diameter with screw nuts and washers not less than five inches square and one-half an inch thick.

DROP LADDERS.

A proper drop ladder shall be required from the lower balcony when the floor of such balcony is more than fourteen feet above the sidewalk or ground.

PAINTING.

All the parts of such fire escapes shall receive not less than two coats of paint, one in the shop and one after erection.

INCUMBRANCES ON FIRE ESCAPES.

No persons shall at any time place any incumbrances of any kind whatsoever before or upon any fire escape, balcony or stairway.

It shall be the duty of every fireman and policeman who shall discover any fire escape, balcony or stairway of any fire escape incumbered in any way, to forthwith report the same to the commanding officer of his company or precinct, and such commanding officer shall forthwith cause the occupant of the premises or apartment to which said fire escape, balcony or stairway is attached or for whose use the same is provided, to be notified, either verbally or in writing, to remove such incumbrances and keep the same clear.

If said notice shall not be complied with by the removal, forthwith, of such incumbrances, and keeping said fire escape, balcony or stairway free from incumbrance, then it shall be the duty of said commanding officer to apply to the nearest police magistrate for a warrant for the arrest of the occupant or occupants of the said premises or apartment of which the fire escape forms a part, and the said parties shall be brought before the said magistrate, as for a misdemeanor; and, on conviction, the occupant or occupants of said premises or apartment shall be fined not more than ten dollars for each offense, or may be imprisoned not to exceed ten days, or both, in the discretion of the court.

NOTICE PLATES ON FIRE ESCAPE BALCONIES.

In constructing all balcony fire escapes the manufacturer thereof shall securely fasten thereto, in a conspicuous place, a cast-iron plate having suitable raised letters on the same, to read as follows: Notice—Any person placing any incumbrance on this balcony is liable to a penalty of ten dollars and imprisonment for ten days.

SCUTTLE LADDERS.

All buildings requiring fire escapes shall have stationary iron ladders leading to the scuttle opening in the roof thereof, and all scuttles and ladders shall be kept so as to be ready for use at all times.

BULKHEAD STAIRS AND DOORS.

If a bulkhead is used in place of a scuttle it shall have stairs with sufficient guard or hand rail leading to the roof.

In case the building shall be occupied by more than one family the door in the bulkhead or any scuttle shall nat no time be locked, but may be fastened on the inside by movable bolts or hooks.

SECTION 118.—FIREPROOF SHUTTERS AND DOORS.

Every building, except tenements, dwelling houses, hotels and churches, shall have fireproof doors, blinds or shutters hung to wrought iron eyes built into the wall, on every exterior window and opening above the first story thereof.

Excepting on the front openings of buildings fronting on streets which are thirty-five feet or more in width, or where no other buildings are within thirty-five feet of such openings.

The said doors, blinds or shutters shall be of standard construction, that is, constructed of pine or other soft wood of two r three thicknesses (depending on size) of matched boards, clinch-nailed, at right angles, or placed diagonally with each other, and securely covered with tin on both sides and edges, with folded lapped joints, the nails for fastening the same being driven inside the lap; the hinges and bolts or latches shall be secured or fastened to the door or shutter by wrought iron bolts passing through the door or shutter and secured by nuts and washers on the opposite side after the same has been covered with the tin, and such doors or shutters shall be hung upon a wrought iron frame, independent of the woodwork of the windows and doors, or to wrought iron hinges securely fastened to the masonry.

METAL WINDOW FRAMES AND SASH AND WIRED GLASS.

On any opening where the window frame and sash are of metal, and the sash glazed with wired glass not less than one-quarter of an inch in thickness, and each pane measuring not more than thirty by twenty-four inches, the same shall be deemed an equivalent of and a substitute for fireproof shutters.

SHUTTERS ARRANGED TO BE OPENED FROM THE OUTSIDE.

All shutters opening on fire escapes, and at least one row vertically in every three vertical rows on the front window openings above the first story of any building, shall be so arranged that they can be readily opened from the outside by firemen.

ROLLING METAL SHUTTERS.

No rolling iron or steel shutters shall be hereafter placed above the first story of any building, and when used on the first story they shall be counterbalanced so that said rolling shutters may be readily opened by the firemen.

INTERIOR WALL OPENINGS TO HAVE FIREPROOF DOORS.

All buildings specified in this section, hereafter erected or altered, having openings in interior walls, shall be provided with suitable fireproof doors where deemed necessary by the Inspector of Buildings, and to be provided with approved automatic self-closing devices.

OUTSIDE AND INSIDE FIREPROOF SHUTTERS AND DOORS TO BE CLOSED AT NIGHT.

All occupants of buildings shall close all exterior or interior fireproof shutters, doors and blinds at the close of the business of each day.

SECTION 119.—FIREPROOF BUILDINGS.

Every building hereafter erected or altered to be used as a theatre, lodging house, school, jail, public station, hospital, asylum, institution for the use, care or treatment of persons, the height of which extends three stories and not more than forty feet in height, and every building hereafter erected or altered to be used as a hotel or an apartment hotel which exceeds four stories and not more tha nfifty feet ni height (excepting all buildings for which specifications and plans have been heretofore approved by the proper authorities), and every other building the height of which exceeds sixty-five feet or more than five stories in height shall be built fireproof, that is to say:

They shall be constructed with walls of brick, stone, Portland cement concrete, iron or steel in which wood beams or tintels shall not be placed, and in which the floors and roofs shall be constructed with rolled wrought iron or steel floor beams, spaced not more than five feet on centers, for stores, warehouses and factory buildings, and for all other buildings not more than eight feet on centers, and otherwise so arrangedas to spacing and length of beams that the load to be supported by them, together with the weights of the materials used in the construction of said floors, shall not cause a greater deflection of the said beams than one-thirtieth of an inch per foot of span under the total load. The beams shall be tied together at intervals of not more than eight times the depth of the beam with suitable tie-rods.

Between the floor and roof beams shall be placed brick arches springing from the lower flanges of the steel beams, or the spaces between the beams may be filled with hollow tile arches of hard-burnt clay or porous terra cotta, or arches of Portland cement concrete, plain or reinforced with metal, or such other fireproof composition may be used, provided that in each and all cases the strength and method of construction shall conform to the requirements of this Code.

The stairs and staircase landings shall be constructed of brick, stone, Portland cement concrete, iron or steel or a combination of these materials.

No woodwork or other inflammable material shall be used in any of the partitions, furrings or ceiling in any such fireproof buildings, excepting, however, that when the height of the building does not exceed eight stories nor more than one hundred feet, the doors and windows and their frames and trims, the casings, the interior finish when filled solidly at the back with fireproof material, and the floor boardsc and sleepers directly thereunder, may be of wood, but the space between the sleepers shall be solidly filled with fireproof materials extending up to the underside of the floor boards.

When the height of a fireproof building exceeds eight stories, or more than one hundred feet, the floor surfaces shall be of stone, cement tiling or similar incombustible material, all outside window frames and sash shall be of metal.

The inside window frames and sash, doors, trim and other interior finish may be of metal or wood covered with metal or of such other incombustible material that may be approved by the Inspector of Buildings.

FLOOR FILLING—PROTECTION AGAINST INJURY BY FREEZING.

No filling of any kind which may be injured by frost shall be placed between said floor beams during freezing weather, and if the filling is placed during any winter month it shall be temporarily covered with suitable material for protection from being frozen.

INCASING EXPOSED SIDES AND BOTTOM AND TOP PLATES AND FLANGES OF GIRDERS AND BEAMS.

The exposed sides of all iron or steel girders and beams shall be entirely incased in hard burnt clay, porous terra cotta, concrete or other fireproof material not less than two inches in thickness.

All incasing shall be securely attached to the girders or beams.

No pipes, wires or conduit of any kind shall be incased in the fireproofing surrounding any column, girder or beam of steel or iron, but shall be placed outside of such fireproofing.

MATERIALS PROHIBITED.

No plaster of paris, or sulphate of lime, and no coal, sawdust, coke, coke breeze, or unconsumed or partly consumed materials, containing any of the compounds or carbon and subject to combustion, disintegration or distillation at one thousand degrees Fahr., shall enter into any materials used for the construction of the floors, partitions, covering for structural members or in any part of fireproof buildings, except in the form of wall plastering or as a gauge for mortar. No quick lime shall be used in the composition of the material used in the construction of walls or floors except in combination with Portland cement when used for mortar in setting fireproof material with a trowel.

CENTERING..

Centering when used in placing fireproof systems between steel flor beams shall not be removed until such time as the mortar or the materials have set.

The time for such removal to be determined by the Inspector of Buildings.

STRENGTH FOR FIREPROOF FILLINGS.

All fireproof floor systems shall be of sufficient strength to safely carry the load to be imposed thereon without straining the material in any case beyond its safe working

load. The Inspeceor of Buildings may from time to time require such test loads to be applied as he may designate, to prove the carrying capacity of the floors.

PIPE OPENINGS THROUGH FIREPROOF FLOORS.

Openings through fireproof floors for pipes, conduits and similar purposes shall be shown on plans filed in the office of the Inspector of Buildings.

After the floors are constructed no opening greater than eight inches square shall be cut through said floors, unless properly boxed or framed around with iron.

And such openings shall be filled in with fireproof material after the pipes or conduits are in place.

ROOF DOMES.

Nothing in this section contained shall be deemed to prohibit the construction of roof dome, provided that the materials used therefor are in accordance with those specified in this section, and that the unit stresses do not exceed those fixed in Section 131 of this Code, and that in all respects the construction shall be satisfactory to the Inspector of Buildings.

SECTION 120.—INCASING INTERIOR COLUMNS.

All cast iron, wrought iron or rolled steel columns, including the lugs and brackets on same, used for vertical supports in the interior of any fireproof building, or used to support any fireproof floor.

Shall be entirely protected with not less than four inches of hard-burned brickwork, terra cotta, concrete or other fireproof material, without any air space next to the metal, securely applied; but no plaster of paris or lime mortar shall be used for this purpose, nor shall any plaster, whether or not on metal lathing, be considered a part of the covering required.

SECTION 121.—REINFORCED CONCRETE OR CONCRETE-STEEL CONSTRUCTED BUILDINGS AND CONCRETE BUILDING BLOCKS.

The term "reinforced concrete" or "concrete steel" in this section shall be understood to mean an approved concrete mixture reinforced by steel of any shape, so combined that the steel will take up the tensional stresses and assist in the resistance to shear.

Reinforced concrete construction may be accepted for fireproof buildings, if designed as hereinafter prescribed; provided, that the aggregate for such concrete shall be hard-burned broken bricks, or terra cotta, clean broken stone, or furnace slag, or clean gravel together with clean siliceous sand, if sand is required to produce a close and dense mixture; and provided, further, that the minimum thickness of concrete surrounding any reinforcing members one-quarter inch or less in diameter shall be one inch, and for members heavier than one-quarter inch the minimuh thickness of protecting concrete shall be four diameters, taking that diameter, in the event of bars or other than circular cross-section, which lies in the direction in which the thickness of the concrete is measured; but no protecting concrete need be more than four inches thick for bars of any size; and provided, further, that all columns and girders of reinforced concrete shall have at least one inch of material on all exposed surfaces over and above that required for structural purposes; and all beams and floor slabs shall have at least three-quarters inch of such surplus material for fire-resisting purposes; but this shall not be construed as increasing the total thickness of protecting concrete as herein specified.

All the requirements herein specified for protection of steel and for fire-resisting purposes shall apply to reinforced concrete filling between rolled steel beams, as well as to reinforced concrete beams and to entire structures in reinforced concrete. Any concrete structure or the floor filling in same reinforced or otherwise, which may be erected on a permanent centering of sheet metal, of metal lathing and curbed bars or a metal centering of any other form, must be strong etnough to carry its loads without assistance from the centering, unless the concrete is so applied as to protect the centering as herein specified for metal reinforcement.

Exposed metal centering or exposed metal of any kind wil lnot be considered a factor in the strength of any part of any concrete structure, and a plaster finish applied over the metal shall not be deemed sufficient protection.

All concrete for reinforced concrete construction whenever used in such buildings must be mixed in a machine which mixes one complete batch at a time, and entirely discharges it before another is introduced. At least twenty-five complete revolutions must be made at such a rate as to turn the concrete over at least once in each revolution for each batch.

Before permission to erect any concrete-steel structure is issued, complete drawings and specifications shall be filed with the Inspector of Buildings showing all details of the construction, the size and position of all reinforcing rods, stirrups, etc., and giving the composition of the concrete.

The execution of work shall be performed by workmen under the direct supervision of a competent foreman or inspector.

All forms and centering for concrete shall be built plumb in a substantial manner with inside surface smooth and made tight so that no part of the concrete mixture shall leak out through joints, cracks or holes, and after the completion shall be thoroughly cleaned out, removing shavings, chips, pieces of wood and other material, which should not be permitted to forms.

The reinforced steel shall be accurately located in the forms and secured against displacement while the concrete is being placed and tamped.

Whenever fresh concrete joins concrete that it set, or partially set, the surfaces of the old concrete shall be roughened, cleaned and thoroughly slushed with a grout of neat cement and water.

Concrete shall not be installed in freezing weather; such weather shall be taken to mean a temperature of thirty-two degrees Fahrenheit or lower; concrete shall not be allowed to freeze after being put in place, and, if frozen, shall be removed.

The time at which forms and centering may safely be removed will vary from twenty-four hours to sixty hours, depending upon temperature and other atmospheric conditions of the weather; the time for such removal to be determined by the Inspector of Buildings.

The concrete shall be mixed in the proportion of one of cement, two of sand and four of other aggregates as before provided; or the

proportions may be such that the resistance of the concrete to crushing shall not be less than 2,000 pounds per square inch after hardening for twenty-eight days, but for reinforced or plain concrete columns the mixture shall not be leaner than one part of cement, two of sand and four of the coarser aggregate in any case. The tests to determine this value must be made under the direction of the Inspector of Buildings. The concrete used in concrete-steel construction must be what is usually known as a "wet" mixture.

Only high-grade Portland cement shall be permitted in reinforced concrete or concrete-steel constructed buildings. Such cements, when tested neat, shall, after one day in the air, develop a tensile strength of at least 300 pounds per square inch; and after one day in aid and six days in water shall develop a tensile strength of at least 500 pounds per square inch; and after one day in air and twenty-seven days in water shall develop a tensile strength of at least 600 pounds per square inch. Other tests, as to fineness, constancy or volume, etc., made in accordance with the standard method prescribed by American Society of Civil Engineers, may, from time to time, be made by the Inspector of Buildings.

The sand to be used must be clean, sharp grit sand, free from loam or dirt, and shall not be finer than the standard sample kept in the Department of Buildings.

The stone used in the concrete shall be clean, broken stone, of a size that will pass through a three-quarter-inch ring, or good gravel may be used in the same proportion as broken stone, or broken hard brick, or terra cotta, or furnace slag.

The steel shall meet the requirements of Section 38 of this Code.

The contractor must be prepared to make load tests on any portion of a reinforced concrete or concrete-steel constructed building within a reasonable time after erection os often as may be required by the Inspector of Buildings. The tests must show that the construction will sustain a load wtih a factor of safety for floors and structural members as required by Section 128b of this Code.

Cement o rconcrete building blocks may be used in the erection of any building not exceeding two stories in height in Hoboken, provided that they shall conform to the following requirements: The thickness of the walls shall be as specified for brick walls, except where private residences or other buildings of which the superstructure is frame and the foundation walls do not exceed ten feet in height, these concrete walls may be constructed of a block ten inches in width. Wherever a wall is constructed of ten-inch block no permit shall, at any time, be issued whereby said wall shall be increased in height. All walls twenty-four inches or less in width shall be built of block the full width of the wall.

All building blocks shell be constructed of Portland cement having the minimum requirements set forth in the "Standard Specifications for Cement," prepared by the American Society of Civil Engineers, mixed in the proportion of four parts of aggregates to one part of cement. The aggregates shall consist of sand, crushed stone, crushed slag or gravel, which shall be free from dirt or other deleterious matter. Of these four parts, one and one-half parts shall be sand and the other two and one-half parts of crushed stone, crushed slag or gravel. All sand shall be clean and sharp. No loam, ashes or cinders shall be used. All crushed stone, crushed slag or gravel shall be of a size which shall readily pass through a three-quarter-inch screen. For any wall in which the Inspector of Buildings considers greater strength necessary the parts of aggregates may be reduced as he shall order. The part of Portland cement shall remain the same.

The hollow spaces in bearing cross section shall not exceed thirty-three per cent. of the bearing surface where buildings are four stories or less in height, and in buildings above that height the hollow spaces shall not exceed twenty-five per cent. for the three lower stories. The outer and inner walls of the block surrounding the air spaces shall each be not less than twenty-five per cent. of the width of the block.

The total width of the walls surrounding the air space extending from the front to the back of the block shall not be less than the thickness of the block.

Wherever girders or joists rest upon walls so that there is a concentrated load on the block of over two (2) tons the blocks supporting the girder or joists must be made solid. Where such concentrated load shall exceed five (5) tons the blocks, for two (2) cources below and for a distance extending at least eighteen inches each side of said girder, shall be made solid. Where the load on the wall from the girder exceeds five (5) tons, the blocks for three (3) courses beneath it shall be made solid with similar material as in the blocks. Wherever walls are decreased in thickness the top course of the thicker wall to be solid.

Provided always that no wall, or any part thereof, composed of hollow concrete blocks shall be loaded to an excess of eight (8) tons per superficial foot of the area of such blocks, including the weight of the wall, and no blocks shall be used that have an average crushing at less than 1,000 pounds per square inch of area at the age of twenty-eight (28) days; no deduction to be made in figuring the area for the hollow spaces.

All piers and buttresses that support loads in excess of five (5) tone shall be built in solid concrete blocks for such distance below as may be required by the Inspector of Buildings. Concrete lintels and sills shall be reinforced by iron or steel rods in a manner satisfactory to the Inspector of Buildings, and any lintel spanning over four feet six inches in the clear shall rest on solid concrete blocks.

CONCRETE COLUMNS.

Concrete columns shall be reinforced with either a cast iron column or steel of sufficient strength to carry the floor loads in safety.

SECTION 122.—CAST IRON LINTELS.

Cast iron lintels shall not be used for spaces exceeding eight feet.

Cast lintels or beams shall be not less than three-quarters of an inch in thickness in any of their parts.

PLATES UNDER ENDS OF LINTELS AND GIRDERS.

When the lintels, beams or girders are supported at the ends by brick walls or piers they shall rest upon cast iron or steel plates or stone templates of adequate strength by the full size of the bearings.

SECTION 123.—FLOOR LOADS.—TEMPORARY SUPPORTS.

The dead loads in all buildings shall consist of the actual weight of walls, floors, roofs, partitions and all permanent construction.

The live or variable loads shall consist of all loads other than dead loads.

Every floor shall be of sufficient strength to bear safely the weight to be imposed thereon in addition to the weight of the materials of which the floor is composed.

If to be used as a dwelling house, apartment house, apartment hotel, tenement house, hotel or lodging house, each floor shall be of sufficient strength in all its surface to carry not less than sixty pounds.

If to be used for office purposes, not less than seventy-five pounds upon every superficial foot above the first floor, and for the latter floor one hundred and fifty pounds;

If to be used as a school or place of instruction, not less than seventy-five pounds upon every superficial foot;

If to be used for stable and carriage house purposes, not less than seventy-five pounds upon every superficial foot;

If to be used as a place of public assembly, not less than ninety pounds upon every superficial foot;

If to be used for ordinary stores, light manufacturing and light storage, not less than one hundred and twenty pounds upon every superficial foot;

If to be used as a store where heavy materials are kept tsored, warehouse, factory or for any other manufacturing or commercial purpose, not less than one hundred and fifty pounds upon every superficial foot.

The strength of factory floors intended to carry running machinery shall be increased above the minimum given in this section in proportion to the degrees of vibratory impulse liable to be transmitted to the floor, as may be required by the Inspector of Buildings.

The roofs of all buildings having a pitch of less than twenty degrees shall be proportioned to bear safely fifty pounds upon every superficial foot of their surface, in addition to the weight of materials composing the same. If the pitch be more than twenty degrees the live load shall be assumed at thirty pounds upon every superficial foot measured on a horizontal plane.

For sidewalks between the curb and area lines the live load shall be taken at three hundred pounds upon every superficial foot.

VERTICAL SUPPORTS.

Every column, post or other vertical support shall be of sufficient strength to bear safely the weight of the portion of each and every floor depending upon it for support, in addition to the weight required, as before stated, to be supported safely upon said portions of said floors.

REDUCTION IN LIVE LOADS ON COLUMNS.

For the purpose of determining the carrying capacity of columns in dwellings, office buildings, stores, stables and public buildings when over five stories in height a reduction of the live loads shall be permissible as follows:

For the roof and top floor the full live loads shall be used;

For each succeeding lower floor it shall be permissible to reduce the live load by five per cent. until fifty per cent. of the live loads fixed by this section is reached, when such reduced loads shall be used for all remaining floors.

SECTION 124.—LOAD ON FLOORS TO BE DISTRIBUTED.

The weight placed on any of the floors of any building shall be safely distributed thereon.

The Inspector of Buildings may require the owner or occupant of any building, or of any portion thereof, to redistribute the load on any floor, or to lighten such load, where he deems it to be necessary.

SECTION 125.—STRENGTH OF EXISTING FLOORS TO BE CALCULATED.

In all warehouses, storehouses, factories, workshops and stores where heavy materials are kept or stored, or machinery introduced, the weight that each floor will safely sustain upou each superficial foot thereof, or upon each varying part of such floor, shall be esitmated by a competent person employed by the owner or occupant.

Such estimate shall be reduced to writing, on printed forms published by the Inspector of Buildings, stating the material, size, distance apart and span of beams and girders, posts or columns to support floors, and its correctness shall be sworn to by the person making the same.

And it shall thereupon be filed in the office of the Inspector of Buildings.

But if the Inspector of Buildings shall have cause to doubt th ecorrectness of said estimate he is empowered to revise and correct the same, and for the purpose of such revision the officers and employes of the Inspector of Buildings may enter any building and remove so much of any floor or other portion thereof as may be required to make necessary measurements and examinations.

When the correct estimate of the weight that the floors in any such buildings will safely sustain has been ascertained, as herein provided, the Inspector of Buildings shall approve the same.

And thereupon the owner or occupant of said building, or of any portion thereof, shall post a copy of such approved estimate in a conspicuous place on each story, or varying parts of each story, of the building to which it relates.

Before any building hereafter erected is occupied and used, in whole or in part, for any of the purposes aforesaid, and before any building erected prior to the passage of this Code, but not at such time occupied for any of the aforesaid purposes, is occupied or used, in whole or in part, for any of said purposes, the weight that each floor will safely sustain upon each superficial foot thereof shal be ascertained and posted in a conspicuous place on each story or varying parts of each story of the building to which it relates.

No person shall place or cause or permit to be placed on any floor of any building any greater load than the safe load therof, as correctly estimated and ascertained as herein provided.

EXPENSE FOR EXAMINING INTO STRENGTH OF FLOORS.

Any expense necessarily incurred in removing any floor or other portion of any building for the purpose of making and examination herein provided for shall be paid by the City Treasurer of the City of Hoboken upon the requisition of the Inspector of Buildings. Such expenses shall be a charge against the person or persons by whom or on whose behalf said estimate was made, provided such

examination proves the floor of insufficient strength to carry wtih safety the loads found upon them when such examination was made, and shall be collected in an action to be brought by the City Attorney against said person or persons, and the sum so collected shall be paid over to the said Treasurer to be deposited in said fund in reimbursement of the amount paid as aforesaid.

FLOOR CALCULATIONS FILED WITH APPLICATION TO BUILD.

When the owner or the architect of record for any building has filed with his application to build the data required to determine the strength of floors, on one of the blank forms provided for that purpose, such emamination shall not be required, provided that the purposes and uses of the building have not been changed.

SECTION 126.—STRENGTH OF TEMPORARY SUPPORTS.

Every temporary support placed under any structure, wall, girder or beam during the erection, finishing, alteration or repairing of any buildnig or structure, or any part thereof, shall be of sufficient strength to safely carry the load to be placed thereon.

During the construction or alteration of any building or structure no material entering into such construction or alteration shall be placed on any floor of any greater weight than the live load that each such floor is intended to safely sustain when the building or structure is completed.

SECTION 127. — CALCULATIONS. — STRENGTH OF MATERIALS—SAFE LOAD FOR MASONRY WORK.

The safe-bearing load to apply to brickwork shall be taken at—

Eight tons per superficial foot when lime mortar is used;

Eleven and one-half tons per superficial foot when lime and cement mortar mixed is used;

Fifteen tons per superficial foot when cement mortar is used.

RUBBLE-STONE WORK.

The safe-bearing load to apply to rubble-stone work shall be taken at—

Ten tons per superficial foot when Portland cement is used;

When cement other than Portland is used, eight tons per superficial foot;

When lime and cement mortar mixed is used, seven tons per superficial foot;

And when lime mortar is used, five tons per superficial foot.

CONCRETE.

The safe-bearing load to apply to concrete—

When Portland cement is used, shall be taken at fifteen tons per superficial foot;

And when cement other than Portland is used, eight tons per superficial foot.

SECTION 128.—WEIGHT OF CERTAIN MATERIALS.

In computing the weight of walls—

A cubic foot of brickwork shall be deemed to weigh one hundred and fifteen pounds.

Sandstone, white marble, granite and other kinds of building stone shall be deemed to weigh one hundred and seventy pounds per cubis foot.

SECTION 128a.—COMPUTATIONS FOR STRENGTH OF MATERIALS.

The dimensions of each piece or combination of materials required shall be ascertained by computations, according to the rules prescribed by this Code.

SECTION 128b.—FACTORS OF SAFETY.

Where the unit stress for any material is mit prescribed in this Code the relation of allowable unit stress to ultimate strength shall be—

As one to four for metals, subjected to tension or transverse stress:

As one to six for timber.

And as one to ten for natural or artificial stones and brick or stone masonry.

But wherever working stresses are prescribed in this Code, varying the factors or safety hereinabove given, the said working stresses shall be used.

SECTION 129.—STRENGTH OF COLUMNS.

In columns or compression members with flat ends of cast iron, steel, wrought iron or wood, the stress per square inch shall not exceed that given in the following tables:

When the length divided by least radius of gyration equals:

Working Stress per Square Inch of Section.	Cast Iron.	Steel.	Wrought Iron.
120	....	8,240	4,400
110	....	8,820	5,200
100	....	9,400	6,000
90	....	9,980	6,800
80	....	10,560	7,600
70	9,200	11,104	8,400
60	9,500	11,720	9,200
50	9,800	12,300	10,000
40	10,100	12,880	10,800
30	10,400	13,460	11,600
20	10,700	14,040	12,400
10	11,000	14,620	13,200

And in like proportion for intermediate ratios.

When the length divided by the least diameter equals:

Working Stress per Square Inch of Section.	Long Leaf Yellow Pine.	White Pine. Norway Pine Spruce.	Oak.
30	460	350	390
25	550	425	475
20	640	500	560
15	730	575	645
12	784	620	696
10	820	650	730

And in like proportion for intermediate ratios.

Five-eighths the values given for white pine shall also apply to chestnut and hemlock posts.

For locust pasts use one and one-half the value given for white pine.

SECTION 130.—COLUMNS ECCENTRICALLY LOADED.

Any column eccentrically loaded shall have the stresses caused by the eccentricity computed, and the combined stresses resulting from such eccentricity at any part of the column, added to all other stresses at that part, shall in no case exceed the working stresses stated in this Code.

The accentric load of a column shall be considered to be distributed equally over the entire area of that column at the next point below at which the column is securely braced laterally in the direction of the eccentricity.

SECTION 131.—WORKING STRESSES.

The safe carrying capacity of the various materials of construction (except in the case of columns) shall be determined by the following working stresses in pounds per square inch of sectional area:

COMPRESSION (DIRECT).

Rolled steel	16,000
Cast steel	16,000
Wrought iron	12,000
Cast iron (in short blocks)	16,000
Steel pins and rivets (bearings)	20,000
Wrought iron pins and rivets (bearing)	15,000

	With Grain.	Across Grain.
Oak	900	800
Yellow pine	1,000	600
White pine	800	400
Spruce	800	400
Locust	1,800	1,000
Hemlock	500	500
Chestnut	500	1,000
Concrete (Portland) cement, 1; sand, 2; stone, 4		230
Concrete (Portland) cement, 1; sand, 2; stone, 5		208
Concrete, Rosendale, or equal, cement, 1; sand, 2; stone, 4		125
Concrete, Rosendale, or equal, cement, 1; sand, 2; stone, 5		111
Rubble stonework in Portland cement mortar		140
Rubble stonework in Rosedale cement mortar		111
Rubble stonework in lime and cement mortar		97
Rubble stonework in lime mortar		70
Brickwork in Portland cement mortar; cement, 1; sand, 3		250
Brickwork in Rosendale, or equal, cement mortar; cement, 1; sand, 3		208
Brickwork in lime and cement mortar; cement, 1; lime, 1; sand, 6		160
Brickwork in lime mortar; lime, 1; sand, 4		111
Granites (according to test), 1,000 to		2,400
Gneiss stone		1,200
Limestones (according to test), 700 to		2,300
Marbles (according to test), 600 to		1,200
Sandstones (according to test), 400 to		1,600
Bluestone		2,000
Brick (hard-burned, flatwise)		300
Slate		1,000

TENSION (DIRECT).

Rolled steel	16,000
Cast steel	16,000
Wrought iron	12,000
Cast iron	3,000
Yellow pine	1,200
White pine	800
Spruce	800
Oak	1,000
Hemlock	600

SHEAR.

Steel web plates	9,000
Steel shop rivets and pins	10,000
Steel field rivets	8,000
Steel field bolts	7,000
Wrought iron web plates	6,000
Wrought iron shop rivets and pins	7,500
Wrought iron field rivets	6,000
Wrought iron field bolts	5,500
Cast iron	3,000

	With Fiber.	Across Fiber.
Yellow pine	70	500
White pine	40	250
Spruce	50	320
Oak	100	600
Locust	100	720
Hemlock	40	275
Chestnut	..	150

SAFE EXTREME FIBER STRESS (BENDING).

Rolled steel beams	16,000
Rolled steel pins, rivets and bolts	20,000
Riveted steel beams (net flange section)	14,000
Rolled wrought iron beams	12,000
Rolled wrought iron pins, rivets and bolts	15,000
Riveted wrought iron beams (net flange section)	12,000
Cast iron compression side	16,000
Yellow pine	3,000
Spruce	1,200
Oak	800
Locust	800
Hemlock	1,000
Chestnut	1,200
Granite	180
Gneiss stone	150
Limestone	150
Slate	400
Marble	120
Sandstone	100
Bluestone	300
Concrete (Portland) cement, 1; sand, 2; stone, 4	30
Concrete (Portland) cement, 1; sand, 2; stone, 5	20
Concrete (Rosendale or equal) cement, 1; sand, 2; stone, 4	16
Concrete (Rosendale or equal) cement, 1; sand, 2; stone 5	10
Brick (hard-burned)	50
Brickwork (in cement)	30

SECTION 132.—WIND PRESSURE.

All structures exposed to wind shall be designed to resist a horizontal wind pressure of thirty pounds for every square foot of surface thus exposed, from the ground to the top of same, including roof, in any direction.

In no case shall the overturning moment due to wind pressure exceed seventy-five per centum of the moment of stability of the structure.

In all structures exposed to wind, if the resisting moments of the ordinary materials of construction, such as masonry, partitions, floors and connections, are not sufficient to resist the moment of distortion due to wind pressure taken in any direction on any part of the structure, additional bracing shall be introduced sufficient to resist the moment of distortion due to wind pressure, taken in any direction on any part of the structure, additional bracing shall be introduced sufficient to make up the difference in the moments.

In calculations for wind bracing the working stresses set forth in this Code may be increased by fifty per centum.

In buildings under one hundred feet in height, provided the height doe snot exceed four times the average width of the base, the wind pressure may be disregarded.

SECTION 133. — PUBLIC BUILDINGS, THEATRES AND PLACES OF ASSEMBLAGE—PUBLIC BUILDINGS.

In all public buildings or buildings of a public character—

Such as hotels, churches, theatres, restaurants, railroad depots, public halls and other buildings used or intended to be used for purposes of public assembly, amusement or instruction, and including department stores and other business and manufacturing buildings where large numbers of people are congregated, the halls, doors, stairways, seats, passageways and aisles, and all lighting and heating appliances and apparatus shall be arranged as the Inspector of Buildings shall direct to facilitate egress in cases of fire or accident, and to afford the requisite and proper accommodation for the public protection in such cases.

The Inspector of Buildings may at any time serve a written or printed notice upon the owner, lessee or manager of any such buildings, directing any act or thing to be done or provided in or about the said buildings and the several appliances herewith connected, such as halls, doors, stairs, windows, seats, aisles, fire walls, fire apparatus and fire escapes, as he may deem necessary.

THEATRES EXISTING PRIOR TO THE PASSAGE OF THIS ORDINANCE.

Nothing herein contained shall be construed to outhorize or require any other alterations to theatres existing prior to the date of this Code than are specified in this section.

SECTION 134.—THEATRES AND PLACES OF PUBLIC AMUSEMENT.

Every theatre or opera house, or other building intended to be used for theatrical or operatic purposes, or for public resort or entertainments of any kind, hereafter erected, for the accommodation of more than three hundred persons, shall be built to comply with the requirements of this section. No building which, at the time of the passage of this Code, is not in actual use for theatrical or operatic purposes, and no building hereafter erected not in conformity with the requirements of this section, shall be used for theatrical or operatic purposes, or for public entertainments of any kind, until the same shall have been made to conform to the requirements of this section.

No building hereinbefore described shall be opened to the public for theatrical or operatic purposes, or for public entertainment of any kind, until the Inspector of Buildings shall have approved the same in writing as conforming to the requirements of this section, nor until the Commissioners of the Fire Deparment shall have certified in writing that all the appliances for the extinguishing of fire or guarding against the same conform to this Code and to the special requirements of this section and are in a complete and satisfactory working condition.

Every such building shall have at least one front on the street, and in such front there shall be suitable means of entrance and exit for the audience.

In addition to the aforesaid entrances and exits on the street there shall be reserved for service in case of an emergency an open court or space on the side not bordering on the street, where said building is located on a corner lot; and on both sides of said building where there is but one frontage on the street. The width of such open court or courts shall be not less than seven feet where the seating capacity does not exceed one thousand people, exceeding one thousand and not more than eighteen hundred people, eight feet in width, and exceeding eighteen hundred people, ten feet in width. Said open court or courts shall begin on a line with or near the proscenium wall and shall extend the length of the auditorium proper to or near the wall separating the same from the entrance lobby or vestibule.

A separate and distinct corridor shall continue to the street from each open court, through such cuperstructure as may be built on the street side of the auditorium, with continuous walls of brick of fireproof materials on each side the entire length of said corridor or corridors, and the ceiling and floors shall be fireproof. Said corridor or corridors shall not be reduced in width to more than three feet less than the width of the open court or courts, and there shall be no projection in the same; the outer openings to be provided with doors or gates opening toward the street. During the performance the doors or gates in the corridor shall be kept open by proper fastenings; at other times they may be closed and fastened by movable bolts or latches.

The said open court and corridors shall not be used for storage purposes, or for any purpose whatsoever, except for exit and entrance from and to the auditorium and stage, and must be kept free and clear during performances.

The level of said corridors shall be graded to the sidewalk and made flush therewith at all points at the street entrances.

The entrance of the main front of the building shall not be on a higher level than the sidewalk than four steps, but this shall not preclude the use of an additional number of steps at the rear entrance to the sides or rear of the building as may be necessary to overcome the differences in grades or sidewalks.

To overcome any difference of levl in and between courts, corridors, lobbies, passages and aisles on the ground floor, gradients shall be employed of not over one foot in twelve feet with no perpendicular rises.

From the auditorium opening into the said open courts, or on the side street, there shall be not less than two exits on each side in each tier from and including the parquet and each and every gallery. Each exit shall be at least five feet in width in the clear and provided with fire doors constructed as hereinbefore ni this Code described for fireproof doors. All of said doors shall open utwardly and shall be fastened with mvable bolts, the bolts to be kept drawn during performances.

There shall be balconies not less than four feet in width in the said open court or courts at each level or tier above the parquet on each side of the auditorium of sufficient length to embrace the two exits, and from said balconies there shall be stircases extending to the ground level, with a rise of not over eight and one-half inches to a step,

and not less than nine inches tread exclusive of the nosing. The staircase from the upper balcony to the next below shall be not less than thirty inchse in width in the clear, and from the first balcony to the ground three feet in width in the clear, where the seating capacity of the auditorium is for one thousand people or less; three feet six inches in the clear where exceeding one thousand and not more than twenty-five hundred people, and four feet six inches in the claer where the seating capacity is more than twenty-five hundred people. All the before-mentioned balconies and staircases shall be constructed of wrought iron or steel throughout, except that the treads may be of cast iron, and be of ample strength to sustain the load to be carried by them, and they shall be covered with a metal hood or awning, to be constructed in such manner as shall be approved by the Inspector of Buildings.

Where one side of the building borders on a street there shall be balconies and staircases of like capacity and kind, as before mentioned, carried to the ground.

Where located on a corner lot that portion of the premises bordering on the side street and not required for the use of the theatre may, if such portion be of fireproof construction, and not more than twenty-five feet average width, be used from offices, stores or apartments, provided the walls separating this portion from the theatre proper are carried up solidly to and through the roof, and that an exit is provided for the theatre, on each tier, equal to the continued width of exits opening on opposite sides in each tier, communicating with balconies and staircases leading to the street in the manner provided elsewhere in this section.

Nothing herein contained shall prevent a roof garden, art gallery or rooms for similar purposes being placed above a theatre or public building, provided the floor of the same forming the roof over such theatre or building shall be constructed of iron or steel and fireproof materials, and that said floor shall have no covering boards or sleepers of wood, but be of tile or cement. Every roof over said garden or rooms shall have all supports and rafters of iron or steel, and be covered with glass or fireproof materials, or both, but no such roof garden, art gallery or room for any public purpose shall be placed over or above that portion of any theatre or other building which is used as a stage.

No workshop, storage or general property room shall be allowed above the auditorium or stage, or under the same, or in any of the fly galleries, unless all of such rooms or shops are located in the rear of or at the side of the stage, and in such cases they shall be separated from the stage by a brick wall not less than twelve inches in thickness, and the openings leading into said portions shall have self-closing standard fire doors.

No portion of any building hereafter erected or alterede, used or intended to be used for theatrical or other purposes as in this section specified, shall be occupied or used as a hotel, boarding or lodging house, factory, workshop or manufactory, or for storage purposes, except as may be hereafter specially provided for. Said restriction relates not only to that portion of the building which contains the auditorium and he stage, but applies also to the entire structure in conjuncion therewih.

No store or room contained in the building, or the offices, stores or apartments adjoining, as aforesaid, shall be let or used for carrying on any business dealing in any article or material dangerous to life, except under such conditions as may be prescribed by the Fire Department, under authority of a written permit issued by said Department, or for manufacturing purposes.

No lodging accommodations shall be allowed in any part of the building communicating with the auditorium.

Interior walls built of fireproof materials shall separate the auditorium from the entrance vestibule, and from any room or rooms over the same; also from any lobbies, corridors, refreshment or other rooms; and in all such walls the window and door frames and all sash and doors shall be fireproof; the window frames and sash shall be of metal of standard construction, and the sash made stationary and glazed with wired glass not less than one-quarter inch in thickness, and each pane or unit measuring not more than twenty-four by thirty inches; the doors shall be made to close automatically and be of standard pattern and make in every respect.

All staircases for the use of the audience shall be inclosed with wells of brick, or of fireproof materials approved by the Inspector of Buildings, in the stories through which they pass, and the openings to said staircases from each tier shall be full with of staircase. No door shall open immediately upon aflight of stairs, but a landing at least the width of the door shall be provided between such staircase and such door.

A fire wall, built of brick, not less than twelve inches in any portion of same, shall separate the auditorium from the stage, and the same shall extend at least four feet above the stage roof, or the auditorium roof, if the latter be the higher, and shall be coped.

Above the proscenium opening there shall be an iron girder of sufficient strength to safely support the load above, and the same shall be covered with fireproof material not less than four inches in thickness.

Should there be constructed an orchestra over the stage, above the proscenium opening, the said orchestra shall be placed on the auditorium side of the proscenium fire wall, and shall be entered only from the auditorium side of said wall.

The molded frame around the proscenium opening shall be formed entirely of fireproof materials; if metal be used, the metal shall be filled in solid with non-combustible material and securely anchored to the wall with iron.

No doorway or opening through the proscenium wall from the auditorium shall be allowed above the level of the first floor, and each first floor opening shall have self-closing standard fire doors at each side of the wall and openings, if any, below the stage shall have a self-closing standard fire door, and all of the said doors shall be hung so as to be opened from either side of the wall at all times.

There shall be provided over the stage metal skylights of an area or combined area of at least one-twelfth of the area of said stage, fitted with rolling sash and glazed with glass not exceeding one-eighth of an inch thick, and each pane thereof measuring not less than three hundred square inches. The rolling sash shall be fitted with brass wheels not less than two and one-half inches in diameter, and latter shall roll on brass tracks extending the entire length of the sash. The portion of the tracks extending from the edge of the curb of the skylight to the end of the incline may be made of iron.

The skylights shall be set on curbs, so that the lowest portion of the tracks upon which they slide shall be not less than twelve inches above the roof.

The whole of which skylight shall be so constructed as to open instantly on the cutting or burning of a hempen cord, which shall be arranged to hold said skylights closed, or some other equally simple approved automatic device for opening them may be provided. Immediately underneath the glass of said skylights there shall be wire netting, but wire glass shall not be used in lieu of this requirement.

The roof over the stage shall be provided wit ha shaft of galvanized iron extending from the ceiling line up through and at least four feet above the roof, and have a raised cover at the top for the escape of smoke. The least inside diameter, or the least horizontal measurement, if the shaft be of other shape than circular, shall be forty-eight inches. At the bottom of this shaft, on a plane with the ceiling, shall be a galvanized sheet iron door in two parts, each part separately hinged and kept closed by fusible links, so, that in case of fire the doors will instantly open downwards by their own weight.

All that portion of the stage not comprised in the working of scenery, traps and other mechanical apparatus for the presentation of a scene, usually equal to the width of the proscenium opening, shall be built with iron or steel beams filled in between with fireproof material, and all girders for the support of said beams shall be of wrought iron or rolled steel.

The fly galleries and the galleries entire, including pin rails, shall be constructed of iron or steel, and the floors of said galleries shall be composed of iron or steel beams, filled with fireproof materials, and no wood boards or sleepers shall be used as covering over beams, but the said floors shall be entirely fireproof.

The gridiron or rigging loft shall have a lattice iron floor, and be readily accessible by iron stairways.

All stage scenery, curtains and decorations made of combustible material, and all woodwork on or about the stage, shall be painted or saturated with some non-combustible material, or otherwise rendered safe against fire.

And teh finishing coats of paint applied to all woodwork throughout the entire building shall be of such kind as will resist fire to the satisfaction of the Inspector of buildings.

The roof over the auditorium and the entire main floor ofthe auditorium and vestibule, also the entire superstructure over the entrance, lobby and corridors, and all galleries and supports for the same in the auditorium shall be constructed of iron or steel and fireproof materials, not excluding the use of wood floor boards and necessary sleepers to fasten the same to, but such sleepers shall not mean timbers of support, and the space between the sleepers, excepting the portion under the stepping in the galleries, which shall be properly fire-stopped, shall be solidly filled with incombustible material up to the under side of the floor boards.

The fronts of each gallery shall be entirely formed of fireproof materials, except the capping, which may be made of wood.

The ceiling under each gallery shall be entirely formed of fireproof materials.

The ceiling of the auditorium shall be formed of fireproof materials.

All lathing, whenever used, shall be of wire or other metal on metal studding.

The partitions in that portion of the building which contains the auditorium, the entrance and vestibue, and every room and passage devoted to the use of the audience, shall be constructed of fireproof materials, including teh furring of outside or other walls.

None of the walls or ceilings shall be covered with wood sheathing, wood wainscoting, canvas or any combustible material.

But this shall not preclude the construction of awood sounding-board over orchestra pit when the same extends back of and below the overhang of the stage, provided the said wood sheating be properly fire-stopped by a twelve-inch brick wall back of same, and also have a proper fireproof construction directly under the overhang of the stage extending from the brick wall to the apron of the stage.

Actors' dressing rooms shall not be placed on the stage, under the stage, over the stage, on the fly galleries, nor under the auditorium, but shall be placed in a separate section provided for that purpose.

The walls separating said section containing the actors' dressing rooms from the stage shall be not less than twelve inches in thickness, and the openings therefrom to stage shall be protected with standard self-closing fire doors. The partitions dividing the dressing rooms, together with the partitions of every passageway from the same to the stage, and all other partions on or about the sides of the stage, or fireproof portion thereof, shall be constructed of fireproof material not less than four inches in thickness, approved by the Inspector of Buildings. All doors in any of said partitions shall be standard fire doors.

All dressing rooms shall have an independent exit leading directly into a court or street, and shall be ventilated by windows in the external wall.

All shelving and cupboards in each and every dressing room, property room or other storage rooms shall be constucted of metal, slate o some fireproof material.

All windows where accessible, except as this section otherwise specified, shall be arranged to open.

None of the windows in outside walls shall have fixed sashes, fixed iron grills or bars; these may be arranged to hinge and lock, but must be left unlocked during performances.

All seats in the auditorium excepting those contained in boxes shall be not less than thirty-two inches from back to back, measured in a horizontal direction, and firmly secured to the floor. No seat in the auditorium shall have more than six seats intervening between it and an aisle on either side.

No stool or seat shall be placed in any aisle.

All platforms in galleries ofrmed to receive the seats shall be not more than twenty-four inches in height of riser, not less than thirty-two inches in width of platform.

All aisles on the respective floors in the auditorium having seats on both sides of same shall not be less than three feet wide where they begin, and shall be increased in width toward the exits in the ratio of one and one-half inches to five running feet.

Aisles having seats on one side only shall be not less than two feet six inches wide at their beginning and increased in width the same as aisles having seats on both sides.

The aggregate capacity of foyer, lobbies, corridors, passages and rooms for the use of the audience, not including aisle space between seats, shall on each floor or gallery be sufficient to contain the entire number to be accommodated on said floor or gallery, in the ratio of one hundred and fifty superficial feet of flooor room for every one hundred persons.

Gradients or inclined planes shall be employed instead of steps where possible to overcome slight differences of level in or between aisles, corridors and passages.

Every theatre accommodating three hundred persons shall have at least two exits; when accommodating five hundred persons, at least three exits shall be provided; these exits not referring to or including the exits to the open court at the side of the theatre.

Doorways or exit entrance for the use of the public shall not be less than five feet in width, not including the fire exit doorways, and for every additional one hundred persons or fraction thereof in excess of five hundred to be accommodated an aggregate of twenty inches additional exit width must be provided.

All doors or exit or entrance shall open outwardly and be hung to swing in such manner as not to become an obstruction in a passage or corridor, and no such doors shall be closed and locked when the building is open to the public.

Distinct and separate places of exit and entrance shall be provided for each gallery above the first gallery.

A common place of exit and entrance may serve for the main floor of the auditorium and first gallery, provided its capacity be equal to the aggregate capacity of the outlets from the main floor and the said gallery.

No passage leading to any stairway communicating with any entrance or exit, not including fire exits, shall be less than four feet in width in any part thereof.

All stairs within the building shall be constructed of fireproof material throughout, as is elsewhere in this Code required.

Stairs from balconies and galleries shall not communicate with the basement or cellar.

All stairs shall have ereads of uniform width and risers of uniform height throughout in each flight.

No stairway from galleries shall be less than four feet in width. Where accommodation is provided in a gallery for more than one hundred people there shall be at least two stairs extending to the ground arranged on opposite sides of gallery, and for every additional fifty people or fraction thereof in excess of the first one hundred to be accommodated six inches shall be added to the width proportionately divided between the two flights.

The width of all stairs shall be measured in the clear between hand rails.

In no case shall the risers of any stairs exceed seven and a half inches in height, nor shall the treads, xclusiv of nosings, be less than ten and one-half inches wide in straight stairs.

No circular or winding stairs for the use of the public shall be permitted.

Where the seating capacity is for more than one thousand people there shall be at least two independent staircases, with direct exterior outlets provided for each gallery in the auditorium; where there are not more than two galleries, the stairs shall be located on opposite sides of said galleries. Where there are more than two galleries one or more additional staircases shall be provided, the outlets from which shall communicate directly with the principal exit or other exterior outlets. All said staircases shall be of width rpoportioned to the gallery accommodation as elsewhere herein prescribed. Where the seating capacity is for one thousand people, or less, two direct lines of staircases only shall be required, located on opposite sides of the galleries, and in both cases shall extend from the sidewalk level to the upper gallery, with outlets from each gallery to each of said staircases.

At least two independent direct exterior outlets shal lbe provided for the service of the stage and shall be located on the opposite sides of the same.

All inside stairways leading to the upper galleries of the auditorium shall be inclosed on obth sides with walls of fireproof materials. Stairs leading to the first or lower gallery may be left open on one side, in which case they shall be constructed as herein provided for similar stairs leading from the entrance hall to the main floor of the auditorium. But in no case shall stairs leading to any gallery be left open on both sides.

When straight stairs return directly on themselves a landing the full width of both flights, without any steps, shall be provided. The outer line of landings shall be curved to a radius of not less than two feet to avoid square angles. Stairs turning at an angle shall have proper landing without winders introduced at said turn. In stairs, when two side flights connect with one main flight, no winders shall be introduced, and the width of the main flight shall be at least equal to the aggregate width of the side flights. All stairs shall have proper landings introduced at convenient distances.

All inclosed staircases shall have, on both sides, strong hand rails firmly secured to the wall about three inches distant therefrom and about three feet above the stairs, but said hand rails shall not run on level platforms and landings where the same are of greater lentgh than the width of the stairs.

All staircases eight feet and over in width shall be provided with a center hand rail of metal, not less than two inches in diameter, placed at a height of about three feet above the center of the treads, and supported on wrought metal or brass standards of sufficient strength placed not nearer than four feet nor more than six feet apart, and securely bolted to the treads or risers of stairs, or both, and at the head of each flight of stairs, on each landing, the post of standards shall be at least six feet in height, to which the rail shall be secured.

Every steam boiler which may be required for heating or other purpose shall be located outside of the builidng, either under sidewalk or in an extension, but in no case under or within any portion of the building used for theatrical purposes, and the space allotted to the same shall be inclosed by

walls of masonry on all sides, and the ceiling of such space shall be constructed of fireproof materials. All doorways shall have standard automatic sliding fire doors.

No floor register for heating, ventilating or other purposes shall be permitted.

No coil or radiator shall be placed in any aisle or passageway used as an exit, and thereby reduce the same to less than the width required by this section; but all said coils and radiators shall be placed in recesses formed in the wall or partition to receive the same.

All supply, return or exhaust pipes shall be properly incased where passing through floors or near wodwork.

Standpipes of not less than four inches in diameter shall be provided with hose connection as follows: One on each side of the auditorium in each tier, one on each side of the stage in each tier, one within ten feet of the door o fthe property room, one within ten feet of the door of the carpenter's shop and scenery storage room.

All of such standpips and hose connections shall be kept clear of obstructions.

Said standpipes shall receive their supply of water from a gravity tank located over stage roof, botom of tank at least twelve feet above highest point of roof, not less than five thousand gallons capacity, an in adition at least one of the fololwing supplies:

(a) Approved steel pressure tankof ont less than five thousand gallons total capacity located on stage roof or not lower than gridiron floor.

(b) Automatic fire pump of not less than five hundred gallons capacity per minute.

(c) From city mains where pressure is not less than twenty-five pounds per square inch at level of highest hose outlet.

Pipe shall be fitted with approved straight-way composition gate valves at hose outlets, and the thread of all connections shall be uniform with that in use by the local Fire Department.

One spanner to be located at each hose connection.

Pipes shall be kept constantly filled with water under pressure and be ready for immediate use at all times.

In addition to the requirements contained in this section the standpipes shall have a Siamese steamer connection and conform to all other requirements contained in Section 116 of this Code, covering standpipe installation.

A sufficient quantity of approved line, cotton rubber lined, or rubber hose, not less than two and one-half inches in diameter, in fifty-foot lengths, but not less than fifty feet in total length, shall be kept attached to each hose connection. Hose shall be fitted with washers and equipped with couplings and nozzles, the thread of which shall be uniform with that in use by the local Fire Department.

The standpipe equipment above described to be installed independently of and without connection to the automatic sprinkler system required under this section.

A system of automatic sprinklers approved by the Inspector of Buildings and the Commissioners of the Fire Department shall be installed throughout the entire stage section of the theatre located in the rear of the proscenium wall; this to include under roof, under gridiron, under galleries, under the stage, in all dressing-rooms in all workshops, property and all other rooms and passageways.

There shall be an independent water supply to the sprinklers, which may consist of any one of the following:

(a) Gravity tank of not less than ten thousand gallons capacityq, and elevated not less than twenty-five tfeet above the highes sprinkler.

(b) Approved steel presure tank of not less than seven thousand five hundred gallons capacity, located not lower than the highest line of sprinklers.

(c) Direct suply from city water mains where the pressure is sufficient to maintain not less than twenty-five pounds at highest line of sprinklers when same are in operation.

In addition to one or more of the above required supplies there shall be a Siamese steamer connection placed on the outside of the building at each street front, installed as described in Section 116, and with suitable iron plate with raised letters securely attached to the wall near steamer connection, reading "Stage Sprinklers."

The location and spacing of sprinkler heads and the schedule of pipe sizes shall conform to the standard recommended by the National Board of Fire Underwriters, which is hereby made a part of the requirements of this Code.

There shall be kept in readiness for immediate use one forty-gallon cask filled with water and six fire pails on each side of the stage, under the stage, on each fly gallery, and a supply of fire pails in property and other storerooms and in each workshop; said casks and buckets shall be painted red and lettered "For Fire Purposes Only."

There shall also be provided six three-gallon approved chemical fire extinguishers, at least four axes, two twenty-foot hooks, two fifteen-foot hooks and two ten-fot hooks on the stage, and such other appliances as may be required by the Commissioners of the Fire Department.

Every portion of the building devoted to the uses or accommodation of the public, also all outlets leading to the streets, and including the open courts and corridors, shall be well and properly lighted during every performance, and the same shall remain lighted until the entire audience has left the premises.

There shall be one light within a red globe or lantern, placed over each exit opening, on the auditorium side of the wall.

Gas mains and electric light wires supplying the building shall have three independent connections as follows: One for the stage, one for the audtorium, excepting the exit lights therein, and the third for the halls, corridors, lobbies, exit light, including the exit light in the auditorium, and such other portions of the building used by the audience outside of the auditorium proper.

All gas and electric lights in the halls, corridors, lobbies and other portions of the building used by the audience, with the exception of the auditorium proper, but including the exit lights therein, shall be controlled by two separate switches or valves, one to be located in the lobby and the other

to be so loacted as to be operated from the outside of the building.

Provision shall be made for shutting off all gas at a point outside of the building.

When interior gas lights are not lighted by electricity other suitable appliances, to be approved by the Inspector of uBildings, shall be provided.

All suspended or bracket lights surrounded by glass in the auditorium, or in any part of the building devoted to the public, shall be provided with proper wire netting underneath.

No gas or electric light shall be recessed in the walls, woodwork, ceilings or in any part of the building unless protected by fireproof materials.

All lights in passages and corridors in said buildings and whereever else deemed necessary by the Inepsctor of Buildings, shall be guarded with proper wire network.

The footlights, when not electric, in addition to the wire network, shall be guarded with strong wire guard and chain drawn taut placed not less than two feet distant from said footlights, and the trough containing said footlights shall be formed of and surrounded by fireproof materials.

All border lights shall be constructed according to the best known methods, and subject to the approval of the Inspector of Buildings, and shall be suspended for not less than ten feet therefrom by wire rope or iron chain.

All ducts or shafts used for conducting heated air from the main chandelier, or from any other light or lights, shall be constructed of metal and made double, with an air space between, or some other approved fireproof material may be used.

All stage lights shall have strong metal wire guards or screens, not less than eight inches in diameter, so constructed that any material in contact therewith shall be out of reach of the flames of said stage lights, and such guards or fixtures shall in all cases be soldered to the fixture.

The bridge calcium lights at sides of proscenium shall be inclosed in front and on the side by galvanized iron, so that no drop can come in contact with the lights. Electric calciums, so called, are included in the above requirements.

The standpipes, gas pipes, electric wires, hose footlights and all apparatus for the extinguishing of fire or guarding against the same, as in this section specified, shall be installed to the satisfaction of and be in charge of and under control of the Commissioners of the Fire Department, and the said Commissioners are hereby directed to see that the arrangements in respect thereto are carried out, enforced and maintained.

A diagram or plan of each tier, gallery or floor, showing distinctly the exits therefrom, each occupying a space not less than fifteen square inches, shall be printed in black lines in a legible manner on the programme of the performance.

Every exit shall have over the same on the inside the word EXIT painted in legible letters not less than eight inches high.

SECTION 135.—DRAINAGE.—DRAINAGE AND REPAIRS THERETO.

The drainage of all buildings, both public and private, shall be performed in accordance with the rules and regulations of the Inspector of Buildings and the Department of Health.

Repairs or alterations of such plumbing or drainage may be made without the filing and approval of drawings and descriptions with the Inspector of Buildings.

But such repairs or alterations shall not be construed to include cases where new vertical or horizontal lines of soil, waste, vent or leader pipes are proposed to be used.

Notice of such repairs or alterations shall be given to the said Inspector before the same are commenced in such cases as shall be prescribed by the rules and regulations of the said Inspector, and the work shall be done in accordance with the said rules and regulations.

SECTION 136.—BUILDINGS RAISED, LOWERED, ALTERED OR MOVED.

Within the fire limits it shall not be lawful for the owner or owners of any brick dwelling house with eight-inch walls or of any wood building already erected that has a peaked roof to raise the same for the purpose of making a flat roof thereon unless the same be raised with the same kind of material as the building, and unless such new roof be covered with fireproof material.

BUILDINGS INCREASED IN HEIGHT.

And provided that such building, when so raised, shall not exceed forty feet in height to the highest part thereof.

All such buildings must exceed twenty-five feet in height to the peak of the main roof before the said alteration and raising.

In increasing the height of any such building the entire area which such building covers may be raised to a uniform height.

BUILDINGS ENLARGED.

If any such building has an extension of less width than the main building the same may be increased in width to the full width of the main building with the same kind of material and to the same height as the main building.

Any such building may be extended either on the front or rear to a depth of not more than twenty feet and not more than the width of the building, and to the full height, with the same kind of material as the building.

IN A ROW OF FRAME BUILDINGS.

Any frame building situated in a row of frame buildings may be increased in height to conform to the height of adjoining buildings.

WHERE GRADE OF STREET HAS BEEN ALTERED.

If any building shall have been built before the street upon which it is located is graded, or if the grade is altered, such building may be raised or lowered to meet the requirement of such grade.

The restrictions contained in this section shall not prohibit one-story and basement or two-story frame dwelling houses from being increased one additional story in height, but the additional story shall be brick construction.

FRAME BUILDINGS ALTERED FOR BUSINESS USES.

Within the fire limits no frame building more than three stories in height now used as a dwelling shall hereafter be raised or

altered to be used as a factory, warehouse or stable, but the same may be raised to make stores on the first floor, provided the same does not exceed forty feet in height.

MOVING FRAME BUILDINGS.

No wood building within or without the fire limits shall be moved from one lot to another until a statement, setting forth the purpose of said removal and the uses to which said building is to be applied, is filed in the Inspector of Buildings office, and a permit be first obtained therefor.

No wood building shall be moved from without to within the fire limits, but may be moved out of the said fire limits.

BRICK BUILDINGS ENLARGED OR RAISED.

Within the fire limits no brick building shall be enlarged or built upon unless the exterior walls of said addition or enlargement be constructed of incombustible materials; provided, however, that such brick building may be raised, lowered or altered under the same circumstances and in the manner provided for in this section.

SECTION 137.—FIRE LIMITS.

No frame structure or wood structure shall be built hereafter in the City of Hoboken within the fire limits, as the limits now are or from time to time may hereafter be established, except as provided in Section 141 of this Code, and also excepting grain elevators, coal elevators and pockets, ice houses and exhibition buildings as provided for in Section 101 and 101A of this Code.

FIRE LIMITS.

The following described district shall be known as restricted district showing fire limits, and its boundaries are described as follows:

All that section of the City of Hoboken which lies east of a line distant 100 feet west of the west house line of Willow avenue.

SECTION 138.—FRAME OR WOODEN BUILDING, DEFINITION OF.

For the purpose of properly construing this Code a frame or wooden building shall be considered to be any building on which the front, back or either side is constructed of wood, or is supported by a wood frame or the design of which answers to either of these descriptions, whether sheathed outside with metal or not, shall be taken and designated as a frame or wooden building, and the erection or preparations for the erection of any such building shall be subject to the provisions of this Code.

SECTION 139.—HEIGHT OF FRAME BUILDINGS.

It shall not be lawful hereafter to erect in the City of Hoboken a frame or wooden building of the warehouse class of a greater geight than thirty-five feet or more than two stories in height, measured from the curb line of the street to the highest point of said building.

SECTION 140.—FRAME STRUCTURES WITHIN FIRE LIMITS.

The provisions in this section contained shall apply to bulidings and structures, whether temporary or permanent, within the fire limits, as the said fire limits now are or from time to time may hereafter be established.

TEMPORARY FRAME BUILDINGS.

Temporary one-story frame buildings may be erected for the uses of builders within the limits of lots whereon buildings are in course of erection or on adjoining vacant lots, upon permits issued by the Inspector of Buildings. Temporary structures shall be taken to mean and include platforms, stands, election booths and circus tents.

SHEDS.

Sheds of wood not over fifteen feet high, open on at least one side, with the sides and roof thereof covered with fireproof material, may also be built, but a fence shall not be used as the back or side thereof.

Such sheds shall not cover an area exceeding 2,500 square feet except by permission of the Inspector of Buildings in isolated localities and under such conditions as the said Inspetcor may prescribe.

FENCES.

Fences of any construction when built on the building lines shall not exceed a height of ten feet above the surface of the ground.

And when built beyond the building lines they shall be of open picket design and not higher than five feet above the surface of the ground.

All fences shall be properly supported and braced.

SIGNS.

Signs of wood shall not exceed two feet in height on any building, but no sign of wood shall be placed above the front wall or cornice or roof of any building.

Sky signs or any device in the nature of an advertisement, announcement or direction constructed of sheet metal or wire fastened to wood frames supported upon or above at attached to any building shall be deemed to be wood signs.

If such sky signs shall exceed two feet in height they shall be constructed entirely of metal, including the uprights, supports and braces for same, and shall be not more than ten feet in height above the front wall or cornice or roof of the building or structure to which they are attached or by which they are supported.

Before any wood or metal sign shall be placed in position upon, above or attached to the outside of any building a permit shall first be obtained from the Inspector of Buildings.

Such sign shall be so constructed, placed and supported as not to be or become dangerous.

All signs which shall be dangerous in any manner whatever shall be repaired and made safe or taken down by the owner, lessee or occupant of the building.

BILLBOARDS.

No sign or billboards of wood or metal erected upon uprights or other supports extending into the ground shall be at any point more than ten feet above the surface of the ground, and the same shall be properly supported and braced.

PIAZZAS AND BALCONIES.

Piazzas or balconies of wood on buildings other than frame buildnigs which do not exceed eight feet in width, and which do not extend more than three feet above the second story floor beams, may be erected, provided a permit from the Inspector of Buildnigs be granted therefor.

In connected houses such piazzas or balconies may be built, provided the same are open on the front and have brick ends not less than eight inches thick carried up above the roof of such piazza or bancony and coped with stone.

The roofs of all piazzas shall be covered with some fireproof material.

Frame buildings already erected may have placed on any story piazzas, balconies or bay windows of wood, the roofs of which may be covered with the same material as the roof of the main building.

SMALL OUTHOUSES OF WOOD.

Exterior privies and wood or coal houses not exceeding one hundred and fifty square feet in superficial area and eight feet high may be built of wood, but the roofs thereof shall be covered with metal, gravel or slate.

SECTION 141.—FRAME BUILDINGS DAMAGED.

Every wood or frame building, with a brick or other front, within the fire limits, which may hereafter be damaged to an amount not greater than one-half of the value thereof, exclusive of the valuation of the foundation thereof at the time of such damage, may be repaired or rebuilt;

But if such damage shall amount to more than one-half of such value thereof, exclusive of the volue of the foundation, then such building shall not be repaired or rebuilt, but shall be taken down, except as provided in this Code.

SECTION 142.—FOUNDATION WALLS FOR FRAME BUILDINGS.

Foundations for frame buildings shall be laid not less than four feet below the finished surface of the earth or upon the surface where there is rock bottom or upon piles or ranging timbers where found neecssary.

FOUNDATION WALLS FOR FRAME BUILDINGS.

The foundation walls of frame buildings shall be of brick or concrete not less than twelve inches thick.

SECTION 143.—FRAME CONSTRUCTION.

All frame or wood buildings exceeding a height of fifteen feet shall be built with sills, posts, girts, plates and rafters, all if suitable size and properly framed and braced with suitable studs or planks, set at proper distance apart.

The floor beams and rafters shall be not less than two inches in thickness.

The covering of roofs with wood shingles is hereby prohibited. The walls of light, vent and dumbwaiter shafts, whether exterior or interior, in frame buildings, may be constructed of frame, but shall be brick filled and lined with plaster board and two coats of mortar.

Frame buildings shall be roofed only with such materials as are specified in Section 113 of this Code, including in the requirements the covering of the tops and sides of dormer windows.

Nothing in this section shall be construed to prohibit the repairing of any shingle roof, provided the building is not altered in height, but this shall not be construed to permit the renewal of a shingle roof.

Posts of hard wood and wood girders may be used instead of brick fore and aft partitions in cellars of frame buildings.

SECTION 144.—FIRE STOPS.

In all frame buildings which are lathed and plastered or otherwise sheathed on the inside spaces between such parts of the floor joist or beams that rest upon the stud walls or upon partition heads shall be filled in solid for the depth of the joist or beams and between the studs or uprights to the depth of the latter to a height of six inches above the top of th efloor joists or beams with suitable incombustible materials. The fire stop shall extend around all the stud walls of the building, supporting the filling material where necessary on strips of wood nailed between studs, and in all stud partitions that rest directly over each other, and thus form a horizontal line of incombustible material to effectually cut off draft openings from story to story through floors, stud walls and partitions.

DRAINAGE AND HEATING OF FRAME BUILDINGS.

The regulations applying to brick buildings governing drainage and heating, also steam and hot-air pipes and registers, where the same extend through or along stud partitions, shall also apply to frame buildings.

SECTION 145.—FRAME BUILDINGS ALTERED.

Frame buildings may be altered, extended, raised or repaired, provided the new portions comply with the provisions of this Code.

SECTION 146—INSPECTOR OF BUILDINGS —RULES AND REGULATIONS— RECORD OF APPLICATIONS— ORDINANCES ETC.

The Common Council shall appoint in such manner as they may determine an Inspector of Buildings. He shall be a resident of the City of Hoboken, nad who shall serve for the term of two years from the date of appointment and until his successor shall be appointed. He shall be either an architect, carpenter, mason, engineer (civil), or other mechanic. He shall not be engaged in any other business during his incumbency of office, and shall not be an agent, directly or indirectly, of any manufacturer of building material or device. The annual salary of such Inspector of Buildings shall be the sum of eighteen hundred ($1,800) dollars, payable monthly, and said salary shall be in full payment of all services whatever rendered by such Inspector. The Common Council shall appoint an Assistant Inspector of Buildings, who shall serve for the term of one year from the date of appointment and until his successor is appointed. The annual salary of such Assistant shall be twelve hundred ($1,200) dollars a year, payable monthly.

THE INSPECTOR OF BUILDINGS.

The Inspector of Buildings shall have power to vary or modify any of the provisions of this Code or any rule or regulation relating to the construction, alteration or removal of any building or structure erected or to be erected wtihin the City of Hoboken upon an application to him therefor in writing by the owner or lessee of such building or structure or his duly authorized agent, where there are practical difficulties in the way of carrying out the strict letter of this Code, so that the spirit of this Code shall be observed and public safety secured and substantial justiec done; but no such variation or modification shall be granted or allowed unless the particulars of each application and

of the decision of the said Inspector thereon and his reasons therefor shall be entered upon the records.

The Assistant Inspector of Buildings shall perform such duties as may be assigned to him by the Inspector of Buildings.

RULES AND REGULATIONS.

The Inspector of Buildings shall have the power to establish general rules and regulations for the administration of his office; also rules and regulations for the drainage of buildings, as prescribed in section 136 of this Cade; also such other rules and regulations as may be by him deemed advisable or necessary to make in giving full force and effect to the carry out of the provisions of this Code; and he may amend and repeal such rules and regulations when, in his opinion, it shall be necessary or desirable.

RECORD OF APPLICATIONS.

The Inspector of Buildings shall keep a record of all applications presented to him concerning, affecting or relating to the construction, alteration or removal of buildings or other structures.

Such record shall include the date of the filing of each such application; the name and address of the owner of the land on which the building or structure mentioned in such application is situated; names and addresses of the architect and builder employed thereon; a designation of the premises by street number, or otherwise, sufficient to identify the same; a statement of the nature and proposed use of such structure, and a brief statement of the nature of the application, together with a memorandum of the decision of the said Inspector upon such application, and the date of the rendition of such decision. Each application for a new or altered building or structure shall be respectively and consecutively numbered in the date and order of filing. The books containing such records and all plans, statements and other papers relating to such application are hereby declared to be public records, and shall be open to inspection at all reasonable times, but such inspection shall not include the right to copy any plan on file in the office of the Inspector of Buildings, and the copying of any filing, drawing, tracing or print is hereby forbidden.

SECTION 147.—APPEALS AND MODIFICATIONS.

The Inspector of Buildings shall have the power and it shall be his duty to pass upon any question relative to the Code, manner of construction or materials to be used in the erection or alteration of any building or other structure erected or to be erected within the City of Hoboken which is included within the provisions of this Code and other ordinances, and the regulations of the Inspector of Buildings relating to the construction, alteration or removal of buildings or other structures, and to require that such mode, manner of construction or materials shall conform to the true intent and meaning of the several provisions of the said Code and other ordinances and the rules and regulations of the Inspector of Buildings.

SECTION 148—VIOLATIONS AND PENALTIES—COURTS HAVING JURISDICTION.

The owner or owners of any building, structure or part thereof, or wall, or any platform, staging or flooring to be used for standing or seating purposes, where any violation of this Code shall take place, or shall exist, and any architect, civil engineer, builder, plumber, carpenter, mason, contractor, sub-contractor, foreman or any other person who may be employed or assist in the commission of any such violation, and any and all persons who shall violate any of the provisions of this Code or fail to comply therewith, or any requirements thereof, or who shall violate or fail to comply with any order or regulation made thereunder, or who shall build in violation of any detailed statement of specifications or plans submitted and approved thereunder, or of any certificate or permit issued thereunder, shall severally for each and every such violation and non-compliance, respectively, upon conviction thereof before the Recorder, shall forfeit and pay a penalty or fine of fifty dollars.

Any and all of the aforementioned persons who, having been served with a notice as hereinafter prescribed, to remove any violation or comply with any requirement of this Code, or with any order of regulation made thereunder, shall fail to comply with said notice within ten days after such service in the respect named in said notice, shall upon conviction thereof before the Recorder forfeit and pay an additional fine or penalty of fifty dollars; or, after having paid the above fine or penalty, shall fail to comply with sid notice within a reasonable time and shall continue to violate any requirement of this Code in the respect named in such notice, shall upon conviction thereof before the Recorder forfeit and pay a fine or penalty of fifty dollars.

SECTION 149—PROCEEDINGS OF LAW.

Whenever the Inspector of Buildings is satisfied that any building or structure, or any portion thereof, or any drainage, the erection, alteration or construction, executed or repair of which is regulated, permitted or forbidden by this Code is being erected, constructed, altered or repaired or has been erected, constructed or repaied o altered in violation of, or not in compliance with any of the provisions or requirements of this Code, or in vilatin of any detailed statement of specifications or plans submitted and approved thereunder, or of any certificate or permit issued thereunder, or that any provision or requirement of this Code, or any order or direction made thereunder, has not been complied with, or that the plans and specifications for drainage have not been submitted or filed as required by this Code, the Inspector of Buildings may, in his discretion, through the Corporation Attorney, institute any appropriate action or proceeding, at law or in equity, in the name of the city, to restrain, correct or remove such violation, or the execution of any work thereon, or to restrain or crrect the erection or alteratin of, or to require the removal of, or to prevent the occupation or use of the building or structure erected, constructed or altered in violation of, or not in compliance with, any of the provisions of this Code, or with respect to which the requirements of this Code, or of any order or direction made pursuant to any provisions contained in this Code, shall not have been complied with.

SECTION 150—NOTICES OF VIOLATIONS OF CODE.—SERVICE OF PAPERS.

All notices of the violation of any of the provisions of this Code, and all notices directing anything to be done required by this Code, and all other notices that may be required or authorized to be issued thereunder, including notice that any building, structure, premises, or any part thereof, are deemed unsafe or dangerous, shall be issued

by the Inspector of Buildings, and shall have his name affixed thereto, and may be served by any person authorized by the said Inspector.

All such notices may be served by delivering to and leaving a copy of the same with any person or persons violating or who may be liable under any of the several provisions of this Code, or to whom the same may be addressed, and if such person or persons cannot be found after diligent search shall have been made for him or them, then such notice or order may be served by posting the same in a conspicuous place upon the premises where such violation is alleged to have been placed or to exist, or to which such notice or order may refer, or which may be deemed unsafe or dangerous, which shall be equivalent to a personal service of said notice or order upon all parties for whom such search shall have been made.

Such notice or order shall contain a description of the building, premises or property on which such violation shall have been put or may exist, or which may be deemed unsafe or dangerous, or to which such notice or order may refer.

If the person or persons or any of them to whom said notice or order is addressed do not reside in the State of New Jersey and have no known place of business therein the same may be served by delivering to, and leaving with, such person or persons, or either of them, a copy of said notice or order, or if said person or persons cannot be found within said State after diligent search, then by posting a copy of the same in manner as aforesaid and depositing a copy thereof in a post office in the City of Hoboken inclosed in a sealed wrapper, addressed to said person or persons at his or their last-known place of residence, with the postage paid thereon; and said posting and mailing a copy of said notice or order shall be equivalent to personal service of said notice or order.

SECTION 151. — UNSAFE BUILDINGS, SURVEYS, COURT PROCEEDINGS.

Any building or buildings, part or parts of a building, staging or other structure in the City of Hoboken that from any cause may now be or shall at any time hereafter become dangerous or unsafe may be taken down and removed, or made safe and secure, in the manner following:

Immediately upon such unsafe or dangerous building or buildings, or part or parts of a building, staging or structure being so reported to the Inspector of Buildings, the same shall be immediately entered upon a docket of unsafe buildings to be kept by the Inspector of Buildings;

And the owner or some one of the owners, executors, administrators, agents, lesses or any other person or persons who may have a vested or contingent interest in the same, may be served with a printed or written notice containing a description of the premises or structure deemed unsafe or dangerous, requiring the same to be made safe and secure or removed, as the same may be deemed necessary by the Inspector of Buildings, which said notice shall require the person or persons thus servide to immediately certify to the said Inspector his or their assent or refusal to secure or remove the same.

SECTION 152.—RECOVERY OF BODIES UNDER FALLEN BUILDINGS— BUILDINGS IN DANGER OF FALLING—STOPPAGE OF WORK ON BUILDINGS.

In case of the falling of any building or part thereof in the City of Hoboken where persons are known or believed to be buried under the ruins thereof it shall be the duty of the Board of Fire Commissioners to cause an examination of the premises to be made for the recovery of the bodies of the killed and injured.

Whenever, in making such examination, it shall be necessary to remove from the premises any debris, it shall be the dut yof the Commissioners of any and all others of the departments of the City of Hoboken, when called upon by the Inspector of Buildings to co-operate, and to provide a suitable and convenient dumping place for the deposit of such debris.

BUILDINGS IN IMMEDIATE DANGER OF FALLING.

In case there shall be in the opinion of the Inspector of Buildings, actual and immediate danger of the falling of any building or part thereof so as to endanger life or property, said Inspector shall cause the necessary work to be done to render said building or part thereof temporarily safe until the proper proceedings can be taken as in the case of an unsafe building as provided for in this Code.

The Inspector of Buildings is hereby authorized and empowered in such cases, and also where any building or part thereof has fallen, and life is endangered by the occupation thereof, to order and require the inmates and occupants of such building or part thereof to vacate the same forthwith.

And said Inspector may, when necessary for the public safety, temporarily close the sidewalks and streets adjacent to such building or part thereof, and prohibit the same from being used, and the Police Department when called upon by the said Inspector of Buildings to co-operate, shall enforce such orders or requirements.

TO PERFORM THE HUMANE WORK.

For the aforesaid purposes the said Commissioners of the Fire Department or the Inspector of Buildings, as the case may be, shall employ such laborers and materials as may be necessary to perform said work as speedily as possible.

SECTION 153.—STOPPAGE OF WORK ON BUILDINGS.

In case there shall be, in the opinion of the Inspector of Buildings, danger to life or property by reason of any defective or illegal work, or work in violation of or not in compliance with any of the provisions of this Code, the Inspector of Buildings or such person as may be designated by him shall have the right, and he is hereby authorized and empowered to order all further work to be stopped in said building, and to require all persons in and about said building to forthwith vacate the same, and to cause such work to be done in or about the building as in his judgment may be necessary to remove any danger therefrom.

And the Inspector of Bulidings may, when necessary for the public safety, temporarily close the sidewalks and streets adjacent to said building, or part thereof, and the Police Department, when called upon by the Inspector of Buildings to co-operate, shall enforce such orders or requirements.

INSPECTOR OF BUILDINGS MAY ENTER BUILDINGS AND PREMISES.

The Inspector of Buildings or his assistant, so far as it may be necessary for the performance of their respective duties, shall have the right to enter any building or premises in the City of Hoboken.

Any complaint made to the Commissioners of the Fire Department by any citizen that any building, structure or premises are in a dangerous or unsafe condition shall be investigated by said Commissioners, and if upon investigation the complaint is well founded the said Commissioners shall take action as herein provided.

SECTION 154.—EXISTING SUITS AND LIABILITIES.

Nothing in this Code contained shall be construed to affect any suit or proceeding now pending in any court, or any rights acquired, or liability incurred, nor any cause or causes of action accrued or existing, under any act or ordinance repealed hereby. Nor shall any right or remedy of any character be lost, impaired or affected by this Code.

SECTION 155.—INVALIDITY OF ONE SECTION NOT TO INVALIDATE ANY OTHER.

The invalidity of any section or provision of this Code shall not invalidate any other section or provision thereof.

SECTION 156.—REPEALING SECTION.

All former ordinances of the City of Hoboken affecting or relating to the Construction, Alteration or Removal of Buildings or other Structures, and all other ordinances or parts thereof inconsistent herewith, are hereby repealed.

SECTION 157.—DATE WHEN ORDINANCE IS TO TAKE EFFECT.

This ordinance, to be known as the Building Code, shall take effect immediately after its approval by the Mayor or passage over his veto.

Passed by the Council November 23, 1910.

RICHARD F. BUCKLEY,
Chairman of the Council.

Approved November 30, 1910.

GEORGE GONZALES,
Mayor.

Attest:
JAMES H. LONDRIGAN,
City Clerk.

AN ORDINANCE to amend an Ordinance entitled "An Ordinance to Regulate the Erection of Buildings, to provide for the appointment of an Inspector of Buildings and an Assistant Inspector of Buildings, and to define their powers and duties, and to provide for and establish a general Building Code," approved November 30th, 1910.

The Mayor and Council of the City of Hoboken do ordain as follows:

Section twenty-nine (29) of an Ordinance to Regulate the Erection of Buildings, to provide for the appointment of an Inspector of Buildings, and an Assistant Inspector of Buildings, and to define their powers and duties, and to provide for and establish a general Building Code, be and it is hereby amended to read as follows:

Section 29. No building to be used as a saw or grist mill, blacksmith shop, or shop for the working of wood or other combustible materials or rag warehouse, or shop or factory building for the manufacture, repair or renovating of mattresses or bedding, or any other article wherein the use of excelsior, hair or other inflammable or combustible material is used, or for the storage of excelsior or hair, or for the storage of materials of an inflammable nature shall be erected, nor shall any building be converted to such uses, or used for any such purpose within twenty-five (25) feet of any building of the First Grade, or "Hotel," "Tenement," or "Dwelling," or "Office."

Passed by the Council, April 26, 1911.

FREDERICK J. ANDERSON,
Chairman of the Council.

Presented to the Mayor, April 27, 1911.

JAMES H. LONDRIGAN,
City Clerk.

His Honor Mayor George Gonzales having failed to approve or disapprove the above ordinance and file and return same with and to the City Clerk within ten days' time after the Mayor received the same, duly certified, that same became operative, according to law.

JAMES H. LONDRIGAN,
City Clerk.

AN ORDINANCE to amend an ordinance entitled "An Ordinance to Regulate the Erection of Buildings, to provide for the appointment of an Inspector of Buildings and an Assistant Inspector of Buildings, and to define their powers and duties, and to provide for and establish a general Building Code," approved November 30th, 1910.

The Mayor and Council of the City of Hoboken do ordain as follows:

Section 158. The proscenium opening shall be provided with a metal fire-proofed curtain, or a curtain of asbestos or other fire-proof materials, sliding at each end in grooves securely fastened to the brick wall and extending into such grooves to a depth of not less than six (6) inches on each side of the opening, or such asbestos or fire-proof curtain may be provided with steel cable guides not less than one-quarter (¼) of an inch in diameter, provided, that such curtain laps over the stage opening at the sides and top not less than twelve (12) inches and that attached to said curtain at the top and bottom for the full widh hereof shall be wrought iron or steel pipe not less than one and one half (1½) inches internal diameter.

Said fire-proof curtain shall be raised and lowered between each act or intermission and at the close of each performance, and remain closed until the beginnign of the next performance, except during rehearsals and be placed at least three (3) feet distant from the footlights at the nearest point, if gas is used. Act drop curtains shall also be of fire-proof material or material fire-proofed.

Passed by the Council, June 25, 1913.

PATRICK H. DUFFY,
Chairman of the Council.

Approved, July 2, 1913.

MARTIN COOKE, Mayor.

Attest:
JAMES H. LONDRIGAN,
City Clerk.

INDEX.

R.

S.

T.

AN ORDINANCE to amend an ordinance entitled "An ordinance to regulate the erection of buildings, to provide for the appointment of an Inspector of Buildings and an Assistant Inspector of Buildings, and to define their powers and duties, and to provide for and establish a general building code," approved November 30, 1910.

The Board of Commissioners of the City of Hoboken, for and in behalf of The Mayor and Council of the City of Hoboken, do ordain as follows:

1. Section 28 of the ordinance to which this ordinance is an amendment is hereby amended to read as follows:

Section 28. AUTOMOBILE GARAGES AND SHELTERS.

(a) Every automobile garage or shelter hereafter erected in the Cityof Hoboken shall be built of brick, concrete or other fireproof construction.

(b) No building shall be converted into an automobile garage or shelter unless such building is built of brick, concrete or other fireproof construction throughout.

(c) The floors, side walls and ceilings of every building used or to be used as an automobile garage or shelter, which is more than one story in height, the upper floor or floors of which are used or to be used for dwelling purposes, shall be constructed of concrete, hollow tile or other fireproof construction. All stairways leading from such building shall be enclosed with walls of a similar construction.

(d) If a building used or to be used as an automobile garage or shelter is more than one story in height, the part of such building contemplated for the storage or shelter of an automobile or automobiles shall be well ventilated and separated from all work, repair or other rooms, and stair and elevator enclosures by brick firewalls, not less than twelve inches in thickness.

(e) Doors and shutters of fireproof construction shall be provided for all inside and outside wall openings in any building used for the purpose of automobile garage or shelter.

(f) No room or other place in any building used for the storage or shelter of any automobile or automobiles, part of which building is used for dwelling purposes or for any other purpose than the storage or shelter of automobiles, shall be located more than three feet above or below the street grade as establishd by city ordinance.

2. All ordinances and parts of ordinances inconsistent with the provisions of this ordinance are hereby repealed and this ordinance shall take effect when published as required by law.

GUSTAV BACH,
JAMES H. LONDRIGAN,
HARRY L. SCHMULLING,
BERNARD N. McFEELY,
PATRICK R. GRIFFIN,
Commissioners.

DANIEL A. HAGGERTY, City Clerk.

Final Passage, April 22nd, 1919